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ABSTRACT

Comprehensive school health education is a primary prevention strategy for teaching the nation's children and their parents the skills needed for a healthy lifestyle. This publication provides information about the U.S. Department of Education's Comprehensive School Health Education Program (CSHEP) and presents four papers commissioned for the 1992 Comprehensive School Health Education Program Grantees' Conference: (1) "Research Base for Innovative Practices in School Health Education" (Diane Allensworth); (2) "Instituting Innovative Practices in Comprehensive School Health Education Programs for Elementary Schools" (Jill English); (3) "Developing Comprehensive School Health Education Standards for Elementary School Programs" (Lucinda Adams and Betty Holton); and (4) "A Community-Based School Health System: Parameters for Developing a Comprehensive Student Health Promotion Program" (Christopher DeGraw). Three distinct themes emerged throughout the conference suggesting a shift in key elements of the existing paradigm: (1) CSHEP should be driven by the needs of students; (2) CSHEP should be a coordinated, comprehensive, school-and community-based system of service delivery; and (3) CSHEP should focus on identifying and documenting outcomes. Appendices provide historical information, including the 1992 conference agenda, the list of participants, and information about funded projects. (LL)

Comprehensive School Health Education Programs:

Innovative Practices

and

Issues

in

Setting Standards

U.S. Department of Education
Office of Educational Research and Improvement

U.S. Department of Education
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The interpretations and recommendations in this publication are those of the authors and do not necessarily represent the official policies of the U.S. Department of Education. Reference sections of the papers are printed as they were received from the authors.

Contents

INTRODUCTION

On the broad and firm foundation of health alone, can the loftiest and most enduring structures of the intellect be reared.

Horace Mann

The purpose of this book is to provide information about the U.S. Department of Education's Comprehensive School Health Education Program (CSHEP) and to share four papers commissioned for the November 3-5, 1992, Comprehensive School Health Education Program Grantees' Conference, held in Washington, D.C. The conference covered the research base for CSHEPs; effective strategies and practices for developing, implementing, and evaluating comprehensive school health education programs; project management procedures and issues; issues in setting standards for comprehensive school health education; and innovative practices in CSHEPs, primarily at the elementary level.

The papers contained in this book address some of these points. The issues discussed in the papers relate directly to the agenda of the 1993 conference to be held November 7, 8, and 9 in Washington, D.C. It is intended that this book inform the conference participants and serve as a launching pad for the expansion of ideas surrounding the issues.

In addition to the papers, this book contains an appendix of historical information, including the 1992 conference agenda, the list of participants, and information about funded projects.

The Comprehensive School Health Education Program

The major health problems that face this country are largely preventable, acquired in youth, and attributable to a few types of behaviors, including those that lead to injuries (accidents and violence); poor nutrition; and insufficient physical activity. These behaviors are often interrelated. They not only contribute to poor health, they can also contribute to lowered educational and social outcomes.

Comprehensive school health education (CSHE) is a primary prevention strategy for teaching our nation's children and their parents the skills needed for a healthy lifestyle. Since schools are the place where almost all children can be accessed for preventive health services such as immunizations, screenings (vision and hearing), and health promotion campaigns, schools serve as the bases of operation for putting CSHEPs into practice.

The CSHEP provides disease prevention and health promotion demonstration grants that support the design of health education curricula; provide staff development for teaching health, fitness, nutrition, safety, and disease prevention; support parent and community involvement and parent education; and promote coordination among health and education efforts at the federal, state, and local levels. The overall goal of the program is to provide K-12 students with the knowledge and decisionmaking, problem-solving, conflict resolution, and refusal skills that will enable them to establish healthful lifestyles.

A key goal of the CSHEP is to ensure that all funded projects have strong evaluation components so that validated program results can be shared effectively nationwide. Projects are encouraged to apply for national validation through the Project Effectiveness Panel (PEP) and to disseminate successful projects through the National Diffusion Network (NDN).

Eligible Applicants

State educational agencies (SEAs); local educational agencies (LEAs); and SEAs and LEAs collaborating with other entities of their choice, such as institutions of higher education (IHEs), organizations, institutions, and other public and private agencies are eligible to apply for grants. Generally, supported programs emphasize school-wide health education curriculum selection or development, training, interagency partnerships, and the importance of evaluation, dissemination, and institutionalization.

Funding Levels

The CSHEP budget has ranged from $3 million in Fiscal Year (FY) 1989 to $4.4 million in FY 1993. From 1989 to 1993, the CSHEP awarded 60 grants. Recipients included 12 local education agencies, 17 state education agencies, 17 state or local education agencies in collaboration with institutions of higher education, 8 national organizations, and 6 other institutions. In FY 1993, awards were made to 23 continuation projects ($3.2 million) and 11 new projects ($1.2 million). Consequently, there are currently 34 active grants with grant awards ranging from approximately $57,000 to over $200,000. The FY 1994 budget of $4.4 million will primarily support continuation projects. Although project length varies from one to three years, 77 percent of the projects have been awarded as three-year projects.

Priorities

Each year, priorities are established in the CSHEP. The FY 1992 Invitational Funding Priorities were for projects that

improve the training of elementary teachers (K-8) and other appropriate school personnel in comprehensive school health education. Projects that were especially desirable were those that develop and implement new in-service programs for school personnel to expand knowledge of personal health and fitness, nutrition, family health, accident prevention and safety, substance use and abuse, and prevention of communicable disease; and

strengthen and expand a comprehensive school health education curriculum for elementary school children (K-8). In particular, funded projects include those that establish a comprehensive new curriculum integrating key school health education concepts into all aspects of the school program and involving schools, parents, and communities in planning and implementing comprehensive school health education for elementary school students.

Other priority projects provide opportunities to help parents understand health issues and problems and offer them ideas for improving their children's health at home.

Relationship to Federal Priorities and the National Education Goals

The program addresses many of the Department of Health and Human Services' *Healthy People 2000* elementary and secondary education related goals. Moreover, the program provides opportunities to address two of the National Education Goals:

Goal 1: By the year 2000, all children in America will start school ready to learn.

Children will receive the nutrition and health care needed to arrive at school with healthy minds and bodies, and the number of low birthweight babies will be significantly reduced through enhanced prenatal health systems.

Goal 6: By the year 2000, every school in America will be free of drugs and violence and will offer a disciplined environment conducive to learning.

Every school district will develop a comprehensive K-12 drug and alcohol prevention education program. Drug and alcohol curriculum should be taught as an integral part of health education. In addition, community-based teams should be organized to provide students and teachers with needed support.

About this Book and the Conference

Promising information, materials, and practices are shared through publications such as this book. This book's target audiences include policymakers and practitioners from state education agencies, local education agencies, national organizations, and others designing, implementing, improving, and evaluating comprehensive health education programs. The papers contained herein cover the major topics of the 1992 conference in detail, and summary highlights precede each paper.

Themes

Throughout the two-day workshop discussions and in the four commissioned papers, three themes emerged:

1. CSHEP should be driven by the needs of the students.

2. CSHEP should be a coordinated, comprehensive, school- and community-based system of service delivery.

3. CSHEP should focus on identifying and documenting outcomes.

Student Needs

CSHEP should reflect the social, emotional, intellectual, and physical development of children and youth. The content of the programs and the services provided should (1) be age appropriate and consider and provide for the ethnic and cultural diversity of the student body, and (2) foster knowledge of how to make decisions and solve problems.

Coordination

Programs providing comprehensive school health education to students and their families should take a primary prevention approach with a coordinated philosophical base. They should not simply be a weakly fused collection of categorically funded programs. This effort requires that services not be constrained by a single, professional orientation and philosophy, categorical funding priorities, or agency-related control issues. Interdisciplinary training programs are needed to bridge the gap between the knowledge base and implementation.

Outcomes

Comprehensive school health education programs need to differentiate between the knowledge students must acquire and the appropriate behaviors they should demonstrate. Thus, an increased emphasis should be placed on developing and implementing methods to monitor and evaluate the effectiveness of interventions. Diverse evaluation strategies, such as the use of portfolios, student-reported data, and case studies should be implemented.

Summary

Based on the papers included in this publication and the discussions among the grantees at the national conference, a new pardigm for comprehensive school health education appears to be emerging. Key elements of the existing paradigm appear to have shifted

(1) from school-based to school-wide, community-wide programs (Allensworth, DeGraw, Adams, and Holton);

(2) from an instructional focus on the 10 content areas to a focus on needs-driven and health enhancing behaviors and skills that influence lifestyle changes (Allensworth, DeGraw, and English);

(3) from a focus on providing health information to a focus on changing health-related attitudes and behaviors in priority areas of vulnerability (Allensworth, DeGraw, Adams, and Holton);

(4) from a health content instruction model in the classroom to a health promotion model that involves a variety of strategies and interdisciplinary team members through the school and commmunity (Allensworth, DeGraw, English, Adams, and Holton);

(5) from a school health program that ignores the media and their influence to a health program that develops media campaigns to promote positive, health enhancing messages and designs strategies to counter negative messages, such as the glamourizing of drug, alcohol, and tobacco use or failing to show the consequences of the decision to become sexually active;

(6) from a school health program approach to an interdisciplinary/interagency team approach within the community (Allensworth, DeGraw, English, Adams, and Holton);

(7) from an approach to curriculum and program decisions based on professional and personal preferences to curricular and program decisions based on sound education theory, research mediated standards for student outcomes, effective health education programs, and behavioral change theories and knowledge (Allensworth, DeGraw, and English); and

(8) from a focus on teaching skills in isolation through categorical areas to a focus on teaching generic skills that promote the adoption of health enhancing behaviors. Generic personal and social skills that should be taught include refusal skills, problem solving, decisionmaking, media analysis, assertiveness, communication, stress management, and behaviorial contracting (Allensworth, DeGraw, English, Adams, and Holton).

The Comprehensive School Health Education Program grantees and the authors of the four papers raised important issues and challenges to those who would improve health education programs for America's children. There is an African proverb: "It takes a whole village to educate a child." The communities of America have the potential to meet this same goal in health education for all the children in our nation.

Research Base for Innovative Practices in School Health Education

by Diane Allensworth
Kent State University and American School Health Association

Allensworth contrasts the characteristics of the traditional health instruction program with the characteristics of the new school health program. The twelve characteristics of the new program include:

(1) applying multiple models/theories to development;

(2) focusing on priority health behaviors;

(3) promoting the expansion of the school health program;

(4) using a health promotion model that employs multiple strategies;

(5) coordinating health promotion activities in school and community programming;

(6) using interdisciplinary teams at school and interagency networks in the community;

(7) promoting active student participation;

(8) using many common skills in the curriculum;

(9) taking a wider view of the school and its relationship with the community;

(10) recognizing the exemplary role of the staff;

(11) considering family involvement; and

(12) taking a wider view of school health services.

RESEARCH BASE FOR INNOVATIVE PRACTICES IN SCHOOL HEALTH EDUCATION

Diane Allensworth, Ph.D. R.N.

For the first time at the secondary school level, a large-scale controlled study involving almost 5000 students, 150 teachers, and schools in seven states across the nation has demonstrated that a self-reported reduction in drug use, alcohol consumption, and cigarette smoking can be achieved in schools using a comprehensive school health education curriculum.
William L. Roper, 1991

Evidence supports the value of comprehensive school health education. Gold, Parcel, Walberg, Luepker, Portnoy, and Stone (1991), who participated in the Teenage Health Teaching Modules (THTM) evaluation, found that: (1) a school health education curriculum can have significant effects on selected student outcomes, (2) the curriculum was most successful in improving health knowledge, (3) THTM improved attitudes and several self reported priority behaviors such as self reported use of illegal drugs and alcohol, (4) teachers trained to teach the curriculum implemented it with greater fidelity, (5) among new teachers of THTM, fidelity and proficiency were related to improved student knowledge, and (6) pre-implementation training, completion of an action plan and involvement in the decision to adopt THTM improved fidelity of implementation among teachers new to the curriculum.

While the study confirmed the value of a comprehensive health education curriculum, some concerns remain. The evaluation, which was conducted at both the secondary and junior high level did not find significant changes in the attitudes and practices of junior high/middle school students in all settings although these younger students significantly improved their knowledge scores. Further, approximately 30 percent of the students did not complete the post test. An analysis of those who dropped out of the study showed that the dropped participants were significantly more at risk. Finally, while the evaluation found considerable impact on student knowledge, changes in attitudes and practices were more modest (Errecart, Walberg, Ross, Gold, Fiedler, Kolbe, 1991). No data were supplied on the cost of the curriculum or the cost of the teacher training that was found to be correlated with successful implementation.

A retrospective study by Harris (1988) of 4,738 students in grades 3 to 12 from 199 public schools revealed that students' health-related knowledge, positive attitudes and healthy habits increased as the years of health education increased. For example, 43 percent of those students with only one year of health education drank alcohol "sometimes or more often" compared with only 33 percent of those students who had three years of health education; 13 percent of those with only one year of health education had taken drugs compared with only 6 percent of those

who had three years of health education; and only 72 percent of those with one year of health education exercised outside of school compared with 80 percent of those who had three years of health education.

Although there has only been one major national, prospective study that has documented the value of comprehensive health education at the secondary level (Roper, 1991), there have been numerous categorical studies that have successfully changed target behaviors (Zabin, Hirsch, Smith, Street, and Hardy, 1986; Vincent, Clearie, Schuluchter, 1987; Pentz, Cormack, Flay, Hansen, and Johnson, 1989; Perry, 1991; Flynn, 1992). Lessons from research studies begin to provide the school health planner examples of innovative practices that could be incorporated into the school health education program in order to increase its effectiveness. Other resources that identify innovative practices include meta-evaluations (Tobler, 1986; Walberg, 1984), organizational and agency reports (Dhillon and Tolsma, 1991; US Public Health Service, 1989) and summary reports (Tobler, 1986; Bernard, 1992, Dryfoos, 1990; Botvin, 1986).

To provide a structure for describing the literature on innovative practices in school health, the description of the health promoting school originally developed by Young (1991) and expanded by Allensworth (in press) will be used. Characteristics of the school health program in the health promoting school are contrasted with characteristics of the traditional health instructional program (See Figure 1). The characteristics of the new school health program include:

1. applying multiple models/theories when developing interventions to promote health enhancing behaviors;

2. focusing on priority health behaviors within the ten content areas;

3. promoting the expansion of the school health program to include physical education, food services, guidance and psychology, worksite health promotion for staff, and integration of school and community programming in addition to health instruction, health services, and a healthful school environment;

4. replacing the health instruction model with a health promotion model that employs multiple strategies to influence more effectively the adoption of health-enhancing behaviors;

5. coordinating health promotion activities throughout school and community programming, including infusing health content throughout the curriculum;

6. promoting the coordination of the school health program within the school through interdisciplinary teams and

within the community through interagency networks, coalitions or consortiums;

7. promoting active student participation using methods that match teaching techniques with instructional goals;

8. incorporating into the curriculum the many common skills needed to address a variety of health problems/issues;

9. taking a wider view of all aspects of the life of the school and its relationship with the community, e.g. developing caring schools and communities with high expectations for students' success;

10. affirming health promotion in the school as relevant to staff as well as students, recognizing the exemplar role of staff;

11. considering family involvement with health lessons and the school health program as central to the health promoting school; and

12. taking a wider view of the school health services including actively integrating services with the health education curriculum and helping pupils become aware consumers.

1. Applying multiple theories/models when developing interventions to promote health enhancing behaviors.

> "No single theory is sufficient to guide the development, operation and management of an effective health education program. Decisions about management of appropriate methodology, strategic application, management, and evaluation are almost always based on the complementary application of social, behavioral, educational, biomedical and organization models for change."
> H. S. Dhillon, Division of Health, WHO
> D. Tolsma, International Union of Health Educators (1991)

According to Elder (1991) the field of health education has evolved from one which emphasized the dissemination of knowledge to one which emphasizes the modification of health behavior. In the past, it was assumed that changes in knowledge would result in a change in attitudes which in turn would cause a change in behavior. As health scientists probed for the antecedents of various behaviors, they found that lack of knowledge was only one of many factors which influence a decision -- and often it was not the most important factor.

Whether one examines the various models that have been proposed to explain health behavior, research documenting the antecedents to specific health behaviors, or educational research on learning, it is apparent that a variety of factors contribute

to health behavior. There are a number of competing models to explain health behavior including the Health Belief Model, Theory of Reasoned Action, Multiattribute Utility Theory, Social Learning Theory, etc. (Glanz, Lewis and Rimer,1991). A review of the health behavior literature by Cummings, Becker and Maile (1980) revealed six critical factors: knowledge about the disease; perceived threat of illness; attitudes about health care; social interaction, social norms, and social structure; accessibility of health services; and demographic factors.

Walberg (1984) completed a meta-evaluation of educational research to identify the determinants of cognitive, affective, and psychomotor learning. Basically three major factors influenced learning: aptitude, instruction, and environment. Aptitude was a function of ability, developmental level, and motivation/self concept. Both the amount of instruction and the quality of instruction were critical. Those variables which contributed to explaining environmental influences included the home, the classroom, peers, and the television. The amount of time spent watching television was time not available for learning or completing homework. For those promoting health, not only is the time watching television a concern, but also of concern is the latent messages provided within the content of television programming in regard to sexuality, violence, nutrition, family relations (Huston et al, 1992), and alcohol (Wallack, Cassady, and Grube, 1990). This study of 468 randomly selected 11- and 12-years-olds found that the "expectation to drink as an adult is related to exposure to beer commercials, recognizing commercials, and recalling the brands and beliefs about the social and ritual use of beer " (p.ii).

Irwin and Millstein (1986), among others, have identified the biological, social and environmental antecedents that contribute to various adolescent problems: unintentional injury, substance abuse, and premature sexual behavior. Lack of knowledge is one of many factors contributing to health-debilitating behaviors along with a variety of other factors including some of those identified as critical to health behavior or learning: developmental factors, self-concept, media, social interactions with peers and family, lack of accessibility to health care. Because health status and health risks are the result of multiple factors, Green and Krueter (1991) along with a number of others (Dhillon and Tolsma, 1991; Dryfoos, 1990; Pentz, Cormack, Flay, Hansen, and Johnson, 1989; Perry, 1991) suggest using multidimensional or multisectorial interventions when trying to effect behavioral, environmental or social changes.

2. Focusing on priority health behaviors within the traditional ten content areas of health instruction.

> "Clearly no knowledge is more crucial than knowledge about health. Without it, no other life goal can be successfully achieved. Therefore, we recommend that all students study health, learning about the human body, how

it changes over the life cycle, what nourishes it and diminishes it, and how a healthy body contributes to emotional well being." (Boyer, 1983)

Deciding what to teach is often based on a combination of factors: state mandates, state guidelines, guidelines by professional organizations, and local needs. The National Professional School Health Education Organizations (1984) suggested that ten content areas were essential to a comprehensive program. These areas included community health, consumer health, environmental health, family life, growth and development, nutrition, personal health, prevention and control of disease and disorder, safety and accident prevention, and substance use and abuse. The most common content areas required by state mandates are drug and alcohol abuse prevention (29 states), tobacco use prevention (20 states), and nutrition (19 states) (Lovato, Allensworth, and Chan, 1989).

While most sources still recommend a focus on ten content areas, a shift in emphasis has developed with the realization that one's lifestyle contributes significantly to premature illness and death. The Public Health Service (1979) identified four major factors that contributed to premature illness and death in the general population: heredity (20 percent), environment (20 percent), health care delivery system (10 percent), and an unhealthy lifestyle (50 percent).

Of the four factors causing premature illness and death, the school health program can promote most aggressively the development of a health-enhancing lifestyle. Habits established in childhood often are enduring. Further, students are a captive audience within the school during this critical developmental period. The Centers for Disease Control (Kolbe,1990) has targeted behaviors in six areas as critical to reducing premature illness and death: nutrition, physical fitness, intentional and unintentional injury, alcohol and other drug prevention, smoking, and reproductive health.

The focus on these priority behaviors complements a public/private initiative that was launched in 1979 by the Public Health Service to achieve specific national health goals and objectives. The original initiative was renewed a decade later with the publication of *Healthy People 2000* (US Public Health Service, 1989), which identified new goals and objectives to be attained by the end of the century. Approximately one third of these objectives focus on children and youth and can not be attained without the active cooperation of the nation's schools.

In addition to the health objectives for the nation, six education goals have been proposed by the nation's governors (Novella, DeGraw, and Klieman, 1992). Three of the goals will be difficult to attain without the implementation of an effective school health program: readiness for learning; school graduation; and a safe, disciplined, drug and violence free environment. Goal

1 states that all school children will start school ready to learn. Given that one in five students lives, below the poverty level, a school breakfast and lunch program is critical to meet nutritional needs. Further, school-based primary health care is being advocated as a means to ensure that students' health problems receive medical attention because nearly one fourth of students are without health insurance. Goal 2 states that the high school graduation rate will increase to at least 90 percent. Reducing unintended pregnancy among adolescents could further this goal. Goal 6 states that every school will be free of drugs and violence and will offer a disciplined environment conducive to learning. All but one of the priority behaviors identified by the CDC directly relates to these three education goals.

The need to address these priority behaviors has been underscored by the Youth Risk Surveillance Study. This national survey of adolescents which has been replicated in many states revealed that many students engage in numerous health-debilitating behaviors, thus providing the evidence that many local education agencies need to stimulate improvement in their school health program in order to facilitate the adoption of health enhancing behaviors among children and youth.

3. Expanding the scope of the school health program to include healthful school environment, health services, health instruction, physical education, food service, guidance and psychology, worksite health promotion for faculty and staff, and the integration of school and community programs.

> "We absolutely cannot afford to wait until the school bell rings to attend to our children's health and developmental needs. We need to start thinking of immunizations and well-child care, health screening, proper food and prevention of health problems as being just as important as books and pencils and chalkboards and teachers."
> Lawton Childs (1990)

Traditionally, the school health program was defined as having three basic components: health instruction, health services, and a healthful school environment. Kolbe (1986) suggested that this view be enlarged to include physical education, school food services, guidance/psychology programs, worksite health promotion for faculty and staff, and the integration of community and school health programs. The model has been promoted by the state education agency in California, Iowa, Missouri, Nebraska, New Mexico and Texas.

Green and Krueter (1991) have identified three advantages of the expanded program: (1) greater visibility of each of the components increases its saliency and support; (2) identification of the important players in school health suggests the need for a team approach; and (3) the expanded framework recognizes two long-term outcomes -- improved health status and educational achievement.

The Division of Adolescent and School Health at the Centers for Disease Control (1992) has established interim working definitions for the eight components of a comprehensive school health program.

Health education is a planned, sequential, K-12 curriculum that addresses the physical, mental, emotional and social dimensions of health. The curriculum is designed to motivate and assist students to maintain and improve their health, prevent disease, and reduce health-related risk behaviors. It allows students to develop and demonstrate increasingly sophisticated health-related knowledge, attitudes, skills, and practices. The curriculum is comprehensive and includes a variety of topics such as personal health, family health, community health, consumer health, environmental health, family life, mental and emotional health, injury prevention and safety, nutrition, prevention and control of disease, and substance use and abuse. Health education is taught by qualified teachers who have been trained to teach the subject.

Health services are provided for students to appraise, protect, and promote health. These services are designed to: insure access and/or referral to primary health care services, foster appropriate use of primary health care services, prevent and control communicable disease and other health problems, provide emergency care for illness or injury, promote and provide optimum sanitary conditions for a safe school facility and school environment, and provide education and counseling opportunities for the promotion and maintenance of individual, family, and community health. Services are provided by qualified professionals such as physicians, nurses, dentists, and other allied health personnel.

A healthful school environment attends to the physical and aesthetic surroundings, and a psycho-social climate and culture that maximizes the health of students and staff. Factors that influence the physical environment include the school building and the area surrounding it, any biological or chemical agents that might be detrimental to health, and physical conditions such as temperature, noise, and lighting. The psychological environment includes the interrelated physical, emotional, and social conditions that affect the well-being and productivity of students and staff such as physical and psychological safety, positive interpersonal relationships, recognition of needs and successes of the individual, and support for building esteem in students and staff.

Physical education is a planned, sequential K-12 curriculum that provides cognitive content and learning experiences in a variety of activity areas such as: basic movement skills; physical fitness, rhythms and dance; games; team, dual and individual sports; tumbling and gymnastics;

and aquatics. Quality physical education should promote, through a variety of planned physical activities, each student's optimum physical, mental, emotional, and social development, and should promote activities and sports that all students enjoy and can pursue throughout their lives. Physical education is taught by qualified teachers who have been trained to teach the subject.

School food services are provided to promote the health and education of students through access to a variety of nutritious and appealing meals. Programs respond to the health and nutrition needs of all students. School nutrition programs reflect the U.S. Dietary Guidelines of Americans and other quality criteria to achieve nutrition integrity. The school nutrition programs offer an opportunity for students to experience a learning laboratory for classroom nutrition and health education, and serve as a resource for linkages with nutrition-related community services. Services are provided by qualified child nutrition professionals.

Counseling and psychological services provide broad-based individual and group assessments, interventions and referrals which attend to the mental, emotional, and social health of students. Organizational assessment and consultation skills of counselors and psychologists contribute to the overall health of students, and the health of the school environment. Services are provided by professionals such as trained/certified school counselors, psychologists, and social workers.

Health promotion for staff programs provide health assessments, health education, and health-related fitness activities. Such programs encourage and motivate school staff to pursue a healthy lifestyle, thus promoting better health, improved morale, and a greater personal commitment to the school's overall comprehensive health program. This commitment may transfer into greater commitment to the health of students, and create positive role modeling. Health promotion programs can improve productivity, decrease absenteeism, and reduce health insurance costs.

Parent/Community involvement promotes an integrated school, parent, and community approach that establishes a dynamic partnership to enhance the health and well-being of students. School health advisory councils, coalitions, and broadly-based constituencies for school health can provide a means to effectively build support for school health program efforts. Schools should be encouraged to actively solicit parent involvement and engage community resources and services to respond more effectively to the health-related needs of students.

4. Replacing the health instruction model with a health promotion model that integrates school and community programs providing multiple strategies.

> "Effective health education combines a combination of complementary intervention methods including community organization and development, education, legislative and policy development, social marketing, large-scale campaigns and wide range of health communications strategies."
> H. S. Dhillon, Division of Health, WHO
> D. Tolsma, International Union of Health Educators (1991)

Researchers from both health and education have identified a variety of factors that influence learning and behavior. Because a number of researchers have documented the need for multiple interventions when designing programs (Dryfoos, 1990, Green and Krueter, 1991, Elder, 1991, Perry, 1991; Benard, 1986); it seems prudent to replace the health instruction model that focuses basically on activities within the classroom with a health promotion model that uses a variety of strategies in the classroom as well as throughout the school. Additional strategies recognized as complimentary to the provision of quality instruction include: policy mandates (Nelson, 1986; Perry,1991), environmental changes (Nelson, 1986; Perry, 1991; Jensen, 1991), direct intervention, (Nelson, 1986; Dryfoos and Klerman, 1988), social support/role modeling (Israel and McLeroy, 1985; Nelson, 1986; Jensen, 1991; Canadian Association for School Health, 1991), and media (Houston et al, 1992, Flynn, 1992). Figure 2 describes each of these strategies.

A graphic representation of how the various strategies can be used by the eight components of a comprehensive school health program is provided in a chart in Appendix A. The chart details potential interventions that could be used to address substance abuse prevention. While the matrix of possible interventions by professionals, parents, and students outlined on the chart may appear overwhelming, it is not intended to represent the ideal program but potential interventions. How many interventions are necessary to address any one problem is unknown. Green, Krueter, et al., (1980) suggest that a minimum of three strategies be employed for each behavior that is targeted. Vincent, Clearie and Schuchter (1987) conducted a successful multiple intervention, multiple channel initiative to reduce unintended pregnancy, but could not identify any one single factor when asked what was the most successful element of all the interventions employed. Benard (1989), who developed a similar schematic utilizing multiple channels/component to prevent substance abuse, suggested that each channel/component employ at least one activity for each of the five intervention strategies proposed.

Dryfoos (1990), reviewing prevention programming for adolescents at risk for substance abuse, pregnancy, delinquency

and school dropout, identified elements common to all successful intervention programs:

- Locus in schools
- Communitywide multiagency collaborative approaches
- Early identification and intervention
- Intensified individualized attention
- Social skills training
- Engagement of peers in interventions
- Involvement of parents
- Training of staff
- Collaborative administration of specific school programs by community agencies
- Utilization of programs outside of the school
- Linkage to the world of work.

5. Coordinating health promotion activities throughout school and community including infusing health content throughout the curriculum.

> "To be most effective, health education must be planned and delivered by people from all sectors and levels of society, including health educators, health workers, teachers, parents, and friends."
> H. S. Dhillon, Division of Health, WHO
> D. Tolsma, International Union of Health Educators (1991)

Recognizing the variety of influences which impact the health of children and youth leads the school health programmer to the realization that it will take more than a health instruction curriculum delivered one semester in middle and secondary schools to promote health-enhancing habits. Given that most major health problems facing students have a multifactorial etiology, it appears prudent to assume that health messages delivered only during two classes of a semester duration during a six year period will not be sufficient in and of themselves to promote health enhancing behaviors more effectively. Consistent and repeated messages delivered by numerous individuals: teachers, school staff, peers, and parents can change behavior more effectively. (Allensworth, in Press)

Further, delivering messages through different channels is appropriate. Although one assumes that the classroom will provide specific structured learning sequences in health instruction, the cafeteria is also an obvious choice for nutritional and other health messages. Home rooms and study halls could also be structured to provide health messages. Although some of these messages could be developed by the health educator, school nurse, or guidance counselor, many of the messages could be developed by students in home economics, art, science, and/or health classes to be displayed elsewhere in the building. (Allensworth, 1992)

To help students make sense out of the multitude of learning experiences at school an interdisciplinary approach is suggested. An interdisciplinary approach requires that teachers of literature, science, math, history, geography, art, music, business, design, and technology, and/or drama address health themes within the content of their respective disciplines. Findings from studies of neuropsychology and educational methodologies suggest that interdisciplinary education and thematic teaching are techniques which can immerse students in knowledge and bring it to life (Pool, 1991).

Planning wheels were used by faculty from Howard County, Maryland (Palmer, 1991) to create interdisciplinary curricula that make learning more meaningful. Teacher-writers working with curriculum supervisors met in interdisciplinary groups to build linkages. The model allowed for each discipline's core content to remain central while the integration of the curriculum reinforced learning across subjects. One state, Texas, has developed lesson plans for a K-12 infused curriculum that provides health instruction for language arts, science, social studies, mathematics, and health that focus on various content areas such as substance abuse prevention, nutrition, pregnancy prevention and prevention of HIV and other sexually transmitted diseases.

In addition to mobilizing school personnel to deliver health messages, the health teacher might develop instructional sequences that solicit parental involvement. Further, innovative programs may be solicited from professionals working in private practice (dieticians, physicians, psychologists) and/or professionals working in community agencies.

Flynn and others (1992) have demonstrated that a media campaign that supports school programs can increase the effectiveness of either modality in producing changes in the target behavior. This study, with matched communities, provided evidence that mass media interventions are effective in preventing smoking when they share educational objectives with the school program.

6. Promoting the coordination of the school health program within the school through interdisciplinary teams and within the community through networks, coalitions and/or consortiums.

> "We strongly believe that a multidisciplinary approach to prevention is needed given the complexity of the problems facing society. It is clear that one discipline acting alone cannot yield sufficient interventions. It is also clear that multiple disciplines are not sufficient unless they act in concert; sufficient interventions can only occur when the thoughts and efforts of disciplines are merged."
> Jason, Hess, Felner, Moritsugu (1987)

Promoting a healthy school requires that all of the components work together. Although schools have not traditionally been organized for cooperative ventures, (Saxl, Miles, Lieberman, 1990) both interdisciplinary and interagency collaboration are needed (Allensworth, 1992). Sujansky (1991) suggests that there are three essential ingredients in collaborative ventures: a vision, a commitment, and a plan of action detailing project responsibilities, project resources and project deadlines. Use of work teams in the school and as a part of interagency coalitions and networks have been successful in improving the health of students (Gurevitsch, 1991; Thompson, 1988).

The Nebraska Department of Education as part of the Toward a Drug Free Nebraska School Community initiative trained 240 teams that developed action plans to reduce substance abuse among students. The evaluation of the program revealed that those School/Community Teams that met 15 or more times during the school year in comparison to teams that met only 0-2 times had more students that refrained from drinking alcohol (61 percent vs 36 percent), and smoking marijuana (89 percent vs 85 percent). Abstinence was also correlated with the number of team projects completed. Teams that completed nine or more team projects had 56% of their students who reported never drinking and 87 percent who never smoked marijuana. In comparison those schools that completed 0-2 projects had 49 percent of their students refrain from drinking alcohol and 83 percent who refrained from smoking marijuana (Nelson, 1991).

School interdisciplinary and intradisciplinary teams can be organized to address a variety of health issues confronting students or to improve any one of the eight components of a comprehensive school health program. Undoubtedly there may be several teams working simultaneously. Gurevitsch (1991) suggests that two types of teams might be formed: professional groups that focus on their discipline/component of the school health program, and cross-discipline groups that address those issues confronting students such as unintended pregnancy, substance abuse, and intentional injury. Choosing interdisciplinary team members to participate in developing an action plan to address adolescent issues allows for greater dissemination of the plan when the team members share with their professional group the activities developed by the team. (See Figure 3.) Further, interdisciplinary teams might be organized to address specific issues of one or more component areas such as: implementation of referrals to health services or infusion of health education messages throughout the curriculum. (Allensworth, in Press)

According to Thompson (1988), there are several key concepts to remember when using a team approach to enhance the school health program:

- The key for educational change is the individual school with its teachers, principal, students, parents, and community members.

- Any school improvement program must begin with the concerns of the school.
- Teams of teachers are much more effective than individuals in bringing about change.
- Individuals are more committed when they are part of the decisionmaking process.
- School teams working on shared concerns soon become a visible entity within the school and community, thus increasing their potential for change.
- The small team approach is more effective than the unwieldy whole school approach.
- A school team has the potential to generate its own ideas, develop problem solving capability, solicit technical assistance, and disseminate its program improvement approach.
- Problems and solutions differ with each location.
- The school team should be prepared for resistance to change from colleagues.

As schools organize work teams to address the various issues within their school, they might want to organize a steering committee (school health council) that can coordinate the activities of the various work teams. The school health council would contain representatives from each of the eight components of a comprehensive school health program. Each school should probably have a school health council or committee that coordinates the work teams within the school. As the number of schools increase within a district, it is appropriate for the district to convene a representative from each school's council at a district school health council.

To integrate school and community programming a number of collaborative arrangements may be made: school community advisory board, task force, council, coalition, network, or consortium. The last two options have the greatest chance of developing formal, long-term initiatives. Interagency networks and consortiums that combine resources, expertise, and services have great potential for the large-scale delivery of services.

One of the latest innovations in education is the application of a process that began in manufacturing but is currently being examined by the education community: Total Quality Management (TQM) (Glasser, 1990: Olson, 1992; Snyder, 1988; Snyder, 1992). TQM is a program planning process using teams to promote continuous improvement in a product by constantly measuring inputs. Although no large scale evaluation of an education study designed to use TQM has been completed, several researchers (Thompson, 1988; Gurevitsch, 1991) have used a number of TQM techniques in their studies.

7. Promoting active student participation using methods that match teaching strategies with instructional goals.

"The principle of participation creates an environment of mutual ownership in a program. Participants who are fully involved in the program are least likely to drop out of a program, thus increasing the likelihood of the program attaining the desired educational outcome."
H. S. Dhillon, World Health
D. Tolsma, International Union for Health Education
(1991)

While the acquisition of knowledge is a major goal of education, the school health planner must also include as a goal the acquisition of health enhancing behaviors and skills. Ewels and Semment (1985) have developed a model which assists the teacher identify the appropriate strategy to attain their instructional goals. (Figure 4) For example, if the instructional goal is only to raise awareness, then strategies such as a lecture, media, and exhibitions are used; if the goal is decisionmaking, ranking, role playing, simulations, and problem solving are used; but if the goal is behavior change, monitoring, contracting, and self-help groups are used. Other researchers have identified additional strategies as effective if behavior change is the goal: peer instruction, (Dryfoos, 1990; Tobler, 1986) social skill building, (Dryfoos, 1990; Tobler, 1986; Israel and McLeroy, 1985) incentives (Elder, 1991) and parental involvement (Werch and others, 1991, Vincent, Clearie, and Schuluchter, 1987; Greenberg, 1977; Young 1991). Peer instruction has been used to encourage students to remain nonsmokers (Tobler, 1986) and to avoid alcohol and other drugs (Dryfoos, 1990; Tobler, 1986). Parental involvement has successfully been used to increase tooth-brushing, (Greenberg, 1977) to promote eating nutritious foods, (Young, 1991; Perry, 1991) to prevent pregnancy (Vincent, Clearie and Schuluchter, 1987), and to avoid alcohol and drugs (Werch et al, 1991). Eweles and Semmet (1985) suggest that maintenance of behavior change is facilitated by providing structure opportunities for broader social change to encourage others to adopt the health behavior in question.

The "lodestone of prevention" according to Benard (1989) is using peers as a resource. The term peer resource refers to such diverse programs as peer instruction, peer helping, peer tutoring, peer mediation, peer leadership, cross-age mentoring, cooperative learning and youth service. The commonality of all these programs is that youth are provided opportunities to be resources to each other. Bernard (1989) in a comprehensive review of peers as resources states,

> ...the rationale for a peer resource model of education is so multifaceted and grounded in research from so many disciplines and the research evidence for the effectiveness of peer resource programs on a youth's academic and social development is so compelling, ...

that those health professionals interested in prevention need to create the supportive environments that would "empower individuals to make healthy positive decisions and to achieve their human potential." (Bernard, 1989).

The components of a successful peer instruction program include: positive interdependence, face-to-face interaction, individual accountability, training in social skills, time for group processing, heterogenous composition, each child a helper, adequate duration, youth involvement in program implementation (Benard, 1990). Hart (1992) suggests that we borrow the ladder metaphor popularized by Arnstein on adult participation to conceptualize the continuum of peer participation. Confidence and competence is acquired as adults allow children to move from manipulation, decoration, and tokenism to assigned but informed, consulted and informed, adult initiated but decisions shared with children, child-initiated and decisions shared with adults, child initiated and directed, and social mobilization of large-scale projects.

8. Incorporating the common skills needed to address a variety of health issues/problems.

> "A need currently exists to teach these life skills in a normal and systematic fashion with the logical focus of life skills training efforts being the early adolescents in middle/ junior high school."
> Beatrix A. Hamburg (1990)

Specific generic skills have been identified as effective in promoting the adoption of health enhancing behaviors: refusal skills (Meeks and Heit, 1988), problem solving (Mann, 1973, Hamburg, 1990), decision making (Duryea, 1983; Hamburg, 1990), media analysis (Davis, 1991; Cortes, 1989; Hamburg, 1990), assertiveness (Alberti and Emmons, 1970; Bruess and Greenberg, 1988), communication (Laing and Bruess, 1988; Hamburg, 1990), coping strategies for stress (Hamburg, 1990, Fetro, 1992) and behavioral contracting (Elder, 1991). Fetro (1992) suggests that there are several reasons why planners should incorporate the generic personal and social skills into the health education curriculum: (1) Research has documented their effectiveness; (2) The skills may not be as emotionally charged as the content area; (3) The generic skills focus on the positive activities that individuals can do, not what they should not be doing; and (4) In depth learning of the skills provide students with more practice and an opportunity to examine the interrelationship between the skills.

Fetro (1992) identifies four skills essential to the development of personal and social competence: decision making, communication (assertiveness skills and refusal skills), stress management and goal setting. By incorporating these generic skills into health education and guidance programs, students learn techniques that can be useful in addressing a variety of

health issues. In addition to teaching about each of the skills, students need information on how they can develop the skill, practice using the skill, and feedback on using the skill. Modeling the skill in class and demonstrating the skill in all content areas assisting students in learning how the individual skills are useful in all aspects of their lives (Fetro, 1992).

Elder (1991) extends this view of using common skills by suggesting that the concept of generalization should be used by school health planners to increase the effectiveness of their interventions. Although most school health programs focus on individual changes in knowledge, attitudes, and behaviors, Elder believes more progress could be attained by developing a public health view and planning specific interpersonal, situational, and response generalizations into the intervention. Students who learn new behavior skills in the classroom could change that behavior in other situations as well. Further, other health-related behaviors might change, and the individual may get others to change some behaviors or related behaviors (Figure 5). Elder suggests that for maximum effectiveness, all intervention programs should include "an outreach' component whereby the student initially targeted in the intervention in turn is encouraged to act as a change agent with friends and relatives," (p.27) using techniques of peer instruction and cross-age mentoring.

Given the wide disparity in the actual classroom time required for health education, it is necessary to use the minimal time allotted in the most effective way. At the seventh- and eighth-grade level only 22 states require health instruction. At the secondary level twenty-five states require a course to graduate, but the course, most commonly, is taught for one semester. Only two states require more than fifty hours of instruction a year and both are states that combine the health requirement with a physical education requirement so the actual number of health hours are unknown. (Lovato, Allensworth, Chan, 1989). Connell, Turner and Mason (1985) found in an analysis of four different curricula, behavior change occurred after about 50 hours of comprehensive health education.

9. Taking a wider view of all aspects of school life and its relationship with the community, e.g. developing caring, nurturing school and communities with high expectations for student's success.

> "The field of prevention, both research and practice, came a long way in the 1980s: from short term, even one-shot individual-focused interventions in the school classroom to a growing awareness and beginning implementation of long-term, comprehensive, environmental-focused interventions expanding beyond the school to include the community."
> Bonnie Benard, (1988)

While health promotion often focuses on lifestyle change, an alternate vision of a focus that included environmental, economic and social factors emerged during the 1980s. According to Minkler (1989) the Canadian health promotion initiative issued in 1986 captures this vision. The Canadian initiative to achieve the goal of health for all, recognized three health challenges: (1) reducing inequities, (2) increasing prevention, (3) and enhancing coping abilities. These challenges were to be met by three health promotion mechanisms -- self care, mutual aid, and the promotion of healthy environments. Finally, three strategies were identified as necessary in the implementation of the initiative -- fostering public participation, strengthening community health services and coordinating healthy public policy. The initiative attempts to balance personal lifestyle change within the context of broader structural changes. Individual responsibility is balanced with societal responsibility for the health of all through broad economic, institutional, social, and environmental change. Minker (1989) includes students as participants in the process and cites the "Kids Place Project" in Seattle as an example of a project in which students were given a key role in identifying those changes necessary to make Seattle a more healthy, safe, and vibrant city for both younger and future generations.

Benard (1992) concurs with the need to involve the community with the problems facing students. Because the etiology of alcohol and other drug abuse, delinquency, child abuse and adolescent pregnancy are all rooted in the community, it is within the community that the solution resides. Community based programs should be organized around three themes: multiple systems using multiple intervention strategies, collaboration among the multiple systems, and use of a program planning model to assess, plan, implement and evaluate interventions Benard, (1989). Benard (1989) suggests that a community intervention initiative involve each major system (families, schools, work places, media, government, and community) in providing an appropriate prevention activity for five major intervention strategies: (1) involving and training impactors, (2) providing information, (3) developing life skills, (4) creating alternatives, and (5) influencing policy.

The value of a more encompassing approach can also be found in the literature on resiliency. Benard (1992) states that in addition to the personal characteristics of students that favored a positive outcome, there are three characteristics of schools, communities, and families that can provide a protective shield for students in disadvantaged situations: caring and support, high expectations for success, and encouragement for active student participation. Teachers with high expectations for their students strengthen the internalization of a "can-do" attitude. Further, actively involving students in meaningful roles within the school can be as powerful a factor as social support (Maton, 1990). Schools that created a variety of opportunities to assure meaningful student participation tap into "the fundamental human

need to bond -- to participate, to belong, to have some power or control over one's life" (Beard, 1992). Sarason (1990) eloquently summarizes students' views:

> "when one has no stake in the way things are, when one's needs or opinions are provided no forum, when one sees oneself as the object of unilateral actions, it takes no particular wisdom to suggest that one would rather be elsewhere."

10. Viewing health promotion in the school as relevant to staff as well as to students, recognizes the importance of the staff as role models.

> "Learning does not take place in isolation. Societies therefore must ensure that all learners receive nutrition, health care and general physical and emotional support they need in order to participate actively in and benefit from their environment."
>
> Inter-Agency Commission, World Conference on Education for All (1990)

Blair, Tritsch, and Kirsch (1987) have demonstrated that the adoption of a school site health promotion program is capable of providing academic and financial benefits for the school. Because school districts provide medical care benefits, savings can be realized in the direct costs of health insurance if the faculty and staff reduce the severity of their health problems. Further, indirect costs generated by absenteeism, disability, turnover, decreased productivity, and recruitment/replacement costs can also be minimized as individuals adopt health enhancing behaviors.

Blair, Tritsch, and Kirsch (1987), identified several reasons for implementing school site health promotion programs: (1) improved attitudes about the participants' personal health, (2) increased perception of general well-being, (3) improved morale, and (4) improvement in the quality of their instruction. Further, teachers who adopt a healthy lifestyle can serve as role models for their students.

Stevens and Davis (1988), who assessed the difference between four school districts that had strong health promotion programs and four districts that did not, found that the health promoting schools offered a choice of whole wheat/grain breads, salad bars, and fresh fruit on a regular basis; provided more staff in-service programs on fitness, stress management and wellness education; provided more students services such as health-risk appraisals, smoking cessation and weight loss; and offered more student education programs such as first aid, traffic safety, and health education.

Health promotion programs at the school site may include programs on exercise, nutrition, weight control, stress

management, cardiovascular health, substance abuse, as well as an employee assistance program. Administrative support, resources, and schoolwide policies provide needed environmental supports. Polices could prohibit smoking, encourage teachers to use their planning period for a personal fitness regimen, or build into the health/medical insurance plan an incentive that rewards the acquisition of health-enhancing behaviors. Release time for a worksite health promotion director or worksite interdisciplinary team to coordinate/implement the health promotion activities is also conducive to program effectiveness.

Professionals within the school setting who might be available to plan and implement the health promotion programs include school nurses, school counselors, psychologists, health and physical educators, home economics teachers, and athletic trainers. However, while each of these professionals have had training in their respective disciplines, they might not be able to singularly implement a comprehensive health promotion program. The formulation of a committee of health professionals to implement the health promotion program might be needed.

11. Soliciting family support and involvement with health lessons and the school health program as central to the health promoting school.

> "Teachers and administrators have an obligation to help parents carry out their natural roles as models for and helpers of their own children. Working together, schools and families can improve student achievement, attendance, and behavior."
> Warner (1991)

If schools actively involve parents in the education process, the quality of a child's general education is enhanced (Edwards and Young, 1992; Solomon, 1991; Jennings 1990) and student achievement improved (Edwards and Young, 1992). Similarly, Young (1991) notes that there is mounting evidence that family involvement can influence the outcomes of health education programs. Numerous studies have found that actively involving family members in the intervention promotes the adoption of various target behaviors: prevention of adolescent pregnancy (Vincent, Clearie, and Schuluchter, 1987); prevention of substance abuse (Werch et al, 1991); flossing (Greenberg 1977); and choosing appropriate nutrients (Perry, 1991).

Benard (1992) suggests that families can also indirectly promote the well being of their children by fostering protective factors that provide a measure of resiliency. Those factors include providing a caring and supportive environment, having high expectations for the child, and encouraging the child's participation in productive, responsible activities. Even substance abuse reduction has been noted in children from disadvantaged communities who have a family member exhibiting these three characteristics.

Families can become involved through direct involvement in school management, participation in parent training programs, family resource and support programs (Flaxman and Inger, 1991), supervision of home work, volunteer at school, attendance at student performances, and provision of a healthy safe and positive home environment (D'Angelo and Adler, 1991). To facilitate the adoption of health enhancing behaviors, health teachers could structure assignments to involve parents, e.g. asking parents to serve as the support person for a behavioral contract targeting a health-enhancing behavior; assigning students to interview parents about various health issues to facilitate communication; or inviting parents to assist with a health project or class health initiative. (Allensworth, In Press)

Maintaining family involvement after elementary school is difficult due to the organizational structure of middle and high schools and the changing nature of young adolescents (Council of Chief State School Officers Resource Center on Educational Equity, 1991). The Carnegie Council on Adolescent Development noted (1989, p.22):

> The young adolescent is moving from dependence to interdependency with parents, as well as with friends, relatives, and other persons outside the home. While renegotiating relationships with parents and other care-givers, often in outwardly stormy ways, the young person, simultaneously seeks to maintain strong ties with exactly those people.
>
> Freed from dependency of childhood, but not yet able to find their own path to adulthood, many young people feel a desperate sense of isolation. Surrounded only by their equally confused peers, too many make poor decisions with harmful or lethal consequences.

12. Taking a wider view of the school health services including actively integrating services with the health education curriculum and helping pupils become aware consumers.

> "Education requires undivided attention -- possible only only when children are free from discomforts caused by physical and emotional conditions that can be prevented, diagnosed, treated, or minimized through the provision of comprehensive primary health services. Joint Statement of ANA, ASHA, NAPNAP, NASSNC, (1988)."

Using the school as a hub for the provision of health and social services for adolescents is a concept gaining popularity nationwide. Currently school-based or school-linked health clinics are now in over 300 sites. The school linked, multi-service model has moved beyond the demonstration phase and is being replicated in several states: New Jersey, Florida, Massachusetts (Policy Studies Associates, Inc., 1992). The interest in school site health care has emerged due to the

serious nature of the health problems facing students combined with the lack of access to regular medical care. School-based or school-linked clinics have been established by the school system, the health department, or other outside agencies. They offer comprehensive medical care including diagnosis and treatment of minor illnesses, physical examinations, and specialized care such as social and mental health services (Killip, Lovick, Goldman, and Allensworth, 1987).

New Jersey initiated in 29 sites across the state the concept of "one-stop shopping" centers that provide primary health care, mental health and family counseling, and employment services. These centers offer year-round services during and after school as well as on the weekends. Although all sites provide a core of basic services, each site has the flexibility to design the program to meet local needs. Although all sites are located near or at participating schools, over half are managed by a variety of non school agencies chosen by the community. The additional services may include child care, family planning, and transportation. Services are available to all students regardless of ability to pay (Melaville and Blank, 1991).

> "To expect a single community worker to master the whole array of available resources that relate to potential youth needs may seem overwhelming. However, to expect a youth-in-crisis or his/her often-stressed parents to negotiate unassisted the maze of agencies, programs and eligibility roles in order to get the help they need is truly to ask the impossible."
>
> Melaville and Blank (1991)

The challenge for schools and human service agencies is to coordinate their respective roles and responsibilities for the health, well-being, and academic success of students with each other. According to the Council of Chief State School Officers (Mellavile and Banks, 1991), the school must not view itself as an isolated institution within the community separate from family and community services, especially now that child poverty is at record levels. Some essential elements of comprehensive service delivery include (Melaville and Blank, 1991):

- School-based or school-linked access to a wide array of health prevention and treatment services, mental health and family counseling services, social services, employment services, etc.;
- Techniques to ensure that appropriate services are received and adjusted to meet the changing needs of children and families;
- A focus on the whole family;
- Agency efforts to empower families within an atmosphere of mutual respect; and
- An emphasis on improved outcomes for children and families.

Summary

Because few studies have evaluated the impact of a comprehensive health education program on the health behaviors of adolescents, it seems prudent to use those lessons learned from evaluating the impact of programs on specific behaviors. Strategies found to be successful include basing programs on multiple methods, implementing intersectoral collaboration, employing multiple strategies, using those instructional methods that are effective in changing behaviors, incorporating into the curriculum those generic life skills needed to address successfully various health problems, involving peers and families, coordinating access to health services with health instruction and health promotion programs, and developing caring classrooms within caring schools that hold high expectations for students' success in both academics and health.

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Figure 1

Comparison of the traditional health education program with the health instruction program in the health promoting school.

	Traditional health education	Health instruction within the health promoting school
1.	Emphasizes knowledge and attitude changes which in turn will lead to behavior change.	Applies multiple theories/ models when developing interventions to promote health enhancing behaviors.
2.	Organizes the health instruction program around content areas.	Focuses on six priority health behaviors within ten content areas.
3.	Views school health program in terms of instruction, health services, and environment.	Promotes the expansion of program to also include food services, physical education, guidance worksite health promotions and integration of school and community.
4.	Considers health instruction as the focal intervention strategy.	Replaces the health instruction model with a health promotion model that employs multiple strategies.
5.	Considers health education only in limited classroom terms.	Coordinates health promotion activities throughout the programming of the school and community including infusing health content throughout the curriculum.
6.	Promotes coordination of the health education program via a school health advisory council.	Promotes the coordination of the school health program within the school through interdisciplinary teams and within the community through networks, coalitions or consortiums.
7.	Concentrates on didactic, teacher-led health instruction and acquisition of facts.	Promotes active student participation using methods that match teaching techniques with instructional goals, develops student skills.

8.	Tends to respond to a series of problems or crisis one-by-one.	Recognizes the commonality skills needed to address various health issues and includes these common skills in the curriculum.
9.	Considers the adoption of health promoting behaviors a result of health instruction.	Takes a wider view of all aspects of the life of the school and its relationship with the community, e.g. develops caring schools and and communities with high expectations for pupil success.
10.	Views faculty and staff health in terms of pre-employment as physical and health insurance.	Views health promotion in the school as relevant to staff well as to the students; recognizes the importance of the staff of the staff as role models.
11.	Does not routinely involve parents actively in the the school health program.	Considers family support involvement in health lessons as well as in the development of the total school health program as central to the health promoting school.
12.	Views the role of health services purely in terms of health screening and disease prevention.	Takes a wider view of the school health services program; integrates services with the instructional program to help students become more aware as consumers of health services.

Adapted from: Young Ian M. Encouraging parental involvement in school, In *Youth Health Promotion: From theory to practice in school and community.* Nutbeam D, Hagland B, Farley P, Tellgren P, eds. London: Forbes Publication Ltd, 1991:218-232. and Allensworth Diane DeMuth. Understanding the focus for school health improvement. In *Healthy Students 2000: An Agenda for Continuous Improvement in America's Schools*, ed. by Diane DeMuth Allensworth, Cynthia Wolford Symons, and R. Scott Olds. Kent, Ohio: American School Health Association. In Press. 1-24.

Figure 2
Strategies for School Health Promotion

Policy or Legislative Mandates
School boards and administrators can develop specific rules (policy) governing student conduct, academic offerings, teacher in service, pupil support services, and health promotion programs for faculty and staff. Further, schools can work with city hall and police to establish drug free zones and other citywide ordinances that could provide bike and running trails. Community coalitions could be formed to advocate for state laws that will legislate a tax on cigarettes to be used for school health programming, and which will require safety precautions such as helmet laws for cyclists.

Direct Intervention
Included in this strategy are: screening; referral to treatment, support groups or remedial work; treatment; rehabilitation; and follow-up to referrals. Traditionally, schools have screened and referred students for hearing and vision problems. This could be expanded to include assessment and referrals for students at risk for alcohol and other drugs, and for such physical problems as obesity, high blood pressure, and high cholesterol.

Environmental Change/Facilities Modifications
A variety of environmental changes could promote the adoption of health-enhancing behaviors: providing on-site primary health care, implementing a student assistance program, installing a large clock on the playground so that students monitor their pulse, constructing walking trails/par courses, scheduling of free periods to allow for more support groups, providing day care centers for children of teen mothers, developing programs for latch key children, opening gymnasiums for parent and student fitness activities in the evening, and organizing communitywide coalitions to prevent problems such as substance abuse and teen pregnancy.

Media
Use of all school channels including bulletin boards, display cases, school newspapers, PA system, Channel One TV, cafeteria and library table tents, and homeroom announcements
should complement use of community channels to provide health-enhancing messages. Community coalitions could advocate for the airing of more public-service announcements focusing on health issues on the major community media channels.

Social Support/Role Modeling
Particularly powerful is the modeling of behaviors by significant others. Although individuals understand new information that experts provide, research has shown that behavior change takes place more often when a significant other provides a similar message to engage in the behavior. Significant others include peers, colleagues, parents, mentors, youth leaders, friends, teachers, and/or staff. Formal techniques include peer instruction, cross-age mentoring, adult mentoring, parental

involvement, peer counseling, supportive and nurturing environments with high expectations for student success, and role modeling.

Instruction

It is appropriate to be very clear about desired instruction goals so that methods are chosen that can facilitate the attainment of those goals. Research identifies skills training, peer instruction, monitoring and contracting, and parental involvement in instruction as techniques that have been particularly successful in encouraging children and youth to adopt health enhancing behaviors.

Adapted from D Allensworth: Setting the Stage for Continuous Improvement in School Health. in *Healthy Students 2000: An Agenda for Continuous Improvement in America's Schools. D.D. Allensworth, C.W. Symons, R.S. Olds, (eds.), Kent, Ohio, American School Health Association. 1992, 25-48.*

Figure 3

Interdisciplinary Teams Within the School

Participants Matrix	Work Groups/Teams				
	A	B	C	D	E
Professional group 1					
Professional group 2					
Professional group 3					
Professional Group 4					
Professional group 5					
Professional group 6					
Professional group 7					
Professional group 8					

* *A work group/team has an interdisciplinary membership.*

* *A professional group consists of participants with the same job function or the same range of work. Team members communicate interventions and new techniques to professional colleagues in school.*

The work group/teams might focus on the following issues:

Work group A: Promoting cardiovascular health
Work group B: Reducing substance abuse
Work group C: Improving health services

The professional groups might have the following composition:

Professional group 1: School administration
Professional group 2: School nurses
Professional group 3: Health teachers
Professional group 4: Guidance counselors
Professional group 5: Physical education teachers
Professional group 6: Psychologists
Professional group 7: Food service directors
Professional group 8: Fourth grade teachers

Adapted from: Gurevitsch, G., The Nordborg Project - A Model for the Development of a Health Promoting School in Denmark. *Youth Health Promotion: From Theory To Practice in School & Community*, D. Nutbeam, B. Haglund, P. Tillgren. Forbes Publications (1991) Pg. 163.

Figure 4
Educational Strategies for Health Instruction Goals

Instructional Goal	Description	Strategic Methods
Health Consciousness	Raising awareness	Lectures Group Work Mass Media Displays Exhibitions
Knowledge	Understanding specific information	Lectures One-on-one teaching Displays Exhibitions Written material
Self-awareness Attitude change Decision making	Clarifying values about health	Group work Ranking Role playing Simulations Categorizing Decision making Problem Solving
Behavior Change	Implementing a decision	Self-monitoring/ Contracting Identify costs/benefits Set targets; evaluate progress Devise coping strategies Self-help groups Peer Instruction Parental Involvement Social Skill Building Incentives
Social action	Changing the environment to an	All above strategies plus lobbying
	environment which facilitates health behaviors	Pressure groups Collective health action

Adapted from Ewles I, Semmett I. *Promoting Health: A practical guide to health education*. New York: John Wiley & Sons, 1985.

Figure 5
Conceptual representation of three types of generalizations of behavior change
And subsequent change of other health-related behaviors

Response: Student develops new behavior skills

and

Interpersonal: Gets others to change the same or related behaviors

and

Situational: Changes the behavior in other situations as well.

Adapted from: Elder, John P: From Experimentation to Dissemination Strategies for Maximizing the Impact and Spread of School Health Education in Nutbeam et al eds. *Youth Health Promotion*. London: Forbes Publications Ltd. 1991, 22-33.

APPENDIX A

Promoting Health/Preventing Chronic Disease
Enhancing Nutrition, Fitness and a Smoke-Free Lifestyle

	Total School Environment *Superintendents, Principals*	Class Instruction Elementary & Secondary *Teachers, Health Educators*	Physical Education, *Content Specialists, Coaches, Trainers*	Health Services *Nurses, Nurse Practitioners, Physicians*
Policy	Develop policies which establish schoolsite wellness programs; establish daily PE, require periodic fitness assessments; ban use of low nutrient foods as fund raisers; establish a smoke-free environment.	Comply with policies and assist in the development as requested	Comply with policies and assist in the development as requested.	Comply with policies and assist in the development as requested
Environmental Change	Establish fitness trails inside and outside school. Establish par course. Install large clock with second hand on playground to measure pulse rate. Institute a smoke-free policy.	Promote use of fitness trails through classroom assignments.	Measure/mark fitness trails indoors and outdoors; promote use of trails. Sponsor special fitness events; fun runs; bicycle rodeos; fitness day.	
Direct Intervention	Conduct a psychological inventory of school environment, eliminate adversive conditions Promote fitness in staff.	Encourage students to participate in fitness and nutritional screening and intervention programs	Operate a noontime and after school fitness and nutrition club Encourage use of sunscreen or protective clothing when fitness activities are outside.	Conduct periodic screenings. Provide counseling/support groups for overweight and hypertensive students.
Media Utilization	Use a PA system to broadcast messages on: 1) fitness and CV health during National Running and Fitness Month; Cholesterol Month, Nutrition Month, Heart Month; smoking cessation during Great American Smokeout.	Celebrate with posters and displays; National Running and Fitness Month; National Physical Fitness and Sport Month; National Heart Month; Cholesterol Month, High Blood Pressure Month, Nutrition Month.	Celebrate with appropriate activities the national observances. Develop/distribute a directory that identifies community recreation and fitness opportunities for faculty and students.	Disseminate basic information on fitness, healthy nutrition to faculty, staff, and students.
Social Support Role Modeling	Model fitness by having periodic assessments of blood pressure, cholesterol, lean body mass, fitness; maintaining appropriate weight, eating nutritiously; participating in aerobic activities; participating in self-help groups as needed to lower weight, exercise, etc. Promote a fitness competition between faculty and students.	Model fitness by: having assessments of blood pressure, cholesterol, HDL, LDL, lean body mass, fitness; maintaining appropriate weight; eating nutritiously; participating in self-help groups as needed to lower weight exercise, etc	Model fitness by having assessments of blood pressure, cholesterol, lean body mass; fitness; maintaining appropriate weight; eating nutritiously; participating in self-help groups as needed. Conduct a fitness competition between faculty and students to participate in aerobic activities at the individuals appropriate level.	Model fitness by having assessments of blood pressure, cholesterol, HDL, LDL, lean body mass, fitness; maintaining appropriate weight; eating nutritiously; participating in aerobic activities; participating in self-help groups as needed to lower weight, exercise, no smoking, etc.
Instruction	Encourage all staff and students to celebrate national health observance months. Promote daily PE classes focusing on aerobic fitness and lifetime sports activities. Use cafeteria as a nutritional learning laboratory.	Within the comprehensive health curriculum implement units on physical fitness, nutrition, weight management, tobacco prevention. Integrate instruction into other content areas and with cafeteria. Create independent learning centers focusing on health lifestyles.	Emphasize aerobic activity and lifetime sports in PE. Conduct annual fitness screenings; create individualized exercise prescription. Provide parents with results of assessment, prescription, and suggestion for their involvement in prescription.	Implement in conjunction with physical education, period fitness assessment working with physical educator to provide parents assessments; prescriptions and suggestions for their involvement. Provide supplemental instruction to students and staff, as needed.

	Food Service *Food Service Directors, Managers, Cooks*	Counseling Guidance *Counselors, Psychologists, Social Workers*	Worksite Health Promotion *Director, Staff*	Integrated School and Community *Peers/Parents/ Professionals*
Policy	Comply with policies and assist in the development as requested.	Comply with policies and assist in the development as requested.	Comply with policies and assist in the development as requested.	Encourage development of needed policies.
Environmental Change	Remove salt shakers from tables; place in remote area.		Promote use of fitness trails and par course.	Organize school/ community fitness and recreational events.
Direct Intervention	Offer and promote a variety of nutritious food choices: fresh fruit and vegetables; whole grain breads, unsalted nuts/seeds, 100% juices; salad bar, potato bar. Provide selection lower in fat and cholesterol, moderate in salt, sodium and sugar.	Provide access to biofeedback machines to monitor relaxation. Provide group and individual counseling sessions or behavioral modification and imagery techniques to help students participate in exercise/weight management program.	Provide assessment opportunities; fitness, weight, hypertension, cholesterol, and stress. Conduct health hazard appraisal and provide intervention programming. Encourage use of sunscreen or protective clothing when participating in outdoor fitness activities.	Identify high-risk groups within the community for programming. Integrate community-wide intervention and assessment programs for high blood pressure, cholesterol, and fitness for school staff, students and parents.
Media Utilization	Observe Nutrition Month (March), World Food Day, School Breakfast Week, School Lunch Week as well as other national observances with posters and table tents.	Promote psychological benefits of exercise, stress management, and weight management via brochures. Participate in celebration of national observances.	Provide messages promoting all aspects of cardiovascular health via payroll stuffers and mail box fliers. Use staff lounge bulletin boards for educational messages and information on community opportunities.	Conduct community-wide fitness/weight management campaigns. Petition media to use PSA's promoting nutrition and fitness activities.
Social Support/ Role Modeling	Organize a Student Dietary Advisory Committee Model Cardiovascular Fitness. Promote a fitness competition between faculty and students to participate in aerobics.	Model Cardiovascular fitness. Provide noon time and inservice programming on stress reduction, time management, relaxation techniques, nutrition, weight management, and fitness.	Encourage staff to exercise together during free period. Encourage staff to organize noon weight management/stress reduction/smoking cessation support groups. Role model fitness.	Organize peer instruction and support groups for hypertension, overweight, and stressed individuals. Encourage community to initiate health promotion campaigns.
Instruction	Label lowered calorie, cholesterol and salt dietary selections in cafeteria Provide menu messages on nutrition to be read during daily school announcements. Provide daily nutrient information on cafeteria meals at the front of cafeteria line. Change weekly posters and table tents with nutritional messages.	Explain psychological benefits of exercise, provide motivational techniques. Identify the negative impact of obsessive exercise regimens. Implement lunch time inservice and student programming on stress reduction techniques (e.g., time management, relaxation techniques, assertiveness training, etc.).		Use parents as partners for health lessons. Invite representatives of national volunteer organizations to provide inservice and student programs. (American Heart Association, American Cancer Society, American Lung Association, National Dairy Council, etc.)

Instituting Innovative Practices in Comprehensive School Health Education Programs for Elementary Schools

by Jill English
Southwest Regional Laboratory

English identifies the areas where innovation is needed for comprehensive school health education to succeed at the elementary level. She identifies the areas where innovation is needed around four levels of implementation: national, state, school district, and school site.

(1) At the **national level** two innovations must occur:

- o ensuring that health education is recognized as an integral and interactive component of education; and
- o removing the barriers to issue-based funding for programs.

(2) At the **state level** three innovations must occur:

- o requiring a preservice health education course for a teaching certificate;
- o initiating a statewide assessment program; and
- o developing a statewide curriculum framework and model curriculum standards.

(3) Innovations by **local school districts** should occur in three areas:

- o ensuring adequate program implementation;
- o integrating health education across the curriculum; and
- o selecting or developing curricula to enable the greatest probability of success.

(4) Three innovations for **school-site level** practices include:

- o providing opportunities for family involvement;
- o increasing opportunities for peer programs; and
- o providing opportunities for peer coaching and instructional supervision.

Christopher Wren, one of the greatest of English architects, walked one day unrecognized among the men who were at work upon the building of St. Paul's cathedral in London which he had designed. "What are you doing?" he asked one of the workmen, and the man replied, "I am cutting a piece of stone." As he went on he asked the same question to another man, and the man replied, "I am earning five shillings two pence a day." And to the third man he asked the same question and the man answered, "I am helping Sir Christopher Wren build a beautiful cathedral."

That man had vision. He could see beyond the cutting of the stone, beyond the earning of his annual salary, to the creation of a work of art--the building of a great cathedral. In order to improve the health of children in elementary schools, health educators must grasp a larger vision of health education and assist others in grasping that same vision. Admittedly, much of what we know works for improving the health of school-age children through health education is not currently being implemented. There are many barriers, often political and procedural, that interfere with our ability to realize this shared vision. The purpose of this paper is to identify a few of the areas where innovation is needed for comprehensive school health education to succeed at the elementary school level. The paper is organized around four levels of implementation: (a) national, (b) state, (c) school district, and (d) school site. There are certainly more innovative ideas than those discussed in this paper; however, these hold particular promise for demonstration projects that can be funded through the Comprehensive School Health Education Program.

Innovative National Practices

There is significant opportunity to support comprehensive school health education at the national level. In order for this to occur, however, two innovations must occur: (a) ensure that health education is recognized as an integral and interactive component of education, and (b) remove the barriers to issue-based funding for programs.

Include School Health Education in the National Education Agenda

In 1991, then President Bush and the nation's governors announced the goals for American education (U.S. Department of Education, 1991) which identified six national goals to improve learning in America. Although the goals have generated considerable discussion, health education has not been explicitly recognized as a necessary component to achieve the national goals. As health educators, we must help others to see this vision. It is important for educators influencing educational policy at the federal level to ensure that health education is explicitly included in this and upcoming agendas in a comprehensive, integrated manner. The development of national assessments and national curriculum standards for health education will need to be developed if health education is to be seen as a valuable component of the national education agenda.

Remove Barriers to Issue-Based Funding for Programs

Quite a bit of success can be expected from school health education, particularly "if the philosophy of that education is not restricted and categorical" (Nader, 1991, p. 7). This melding of health education and general education programs is a particularly important point

to be considered at the national level.

As a result of funding from the national agenda to reduce drug use, most of the recent innovative practices in health education have been in the area of substance use prevention. However, the ability to provide comprehensive health education as a means of preventing substance use is limited by the restrictions dictated in the funding regulations. Unfortunately, the categorical funding restrictions initiated at the federal level limit the ability of states and local school districts to implement integrated, comprehensive health education. The result is fragmented, issue-specific programs. Instead of teaching comprehensive health education, instruction is boxed into seemingly unrelated topics. We teach tobacco education apart from alcohol and other drug education because of oversight committees that want to ensure that the money allocated for tobacco education is spent just on tobacco education rather than on an approach that will reduce tobacco use while also achieving other goals. HIV/AIDS education is seldom linked with drug education despite the strong relationship between the two. Encouraging this fragmentation are separate state and district program coordinators for each of these issues. All too often these people don't talk to each other, let alone coordinate efforts and create mechanisms for tearing down the barriers between their projects in order to achieve a higher goal. This inefficient, unrelated approach to health education has limited our ability to provide effective, integrated, education that looks at youth as a whole person.

It is a fundamental component of comprehensive health education philosophy that the whole is greater than the sum of its parts. Yet, it seems an insurmountable problem to try to break down the barriers between individually-funded issues. We must press our case with legislators and other policy makers at the national level to tear down the barriers that restrict our ability to achieve mutually desirable goals in an efficient, comprehensive manner.

Innovative State Practices

State departments of education can take a leadership role in the development and implementation of comprehensive school health education programs, even in states that heavily support local control of education. At least three innovations are needed at the state level: (a) require a preservice health education course for obtaining a teaching credential, (b) initiate a statewide assessment program; and (c) develop a statewide curriculum framework and model curriculum standards.

Require a Preservice Health Education Course for Obtaining a Teaching Credential

When an issue such as drug abuse prevention becomes a great social concern, schools often react by hastily implementing curricula that teachers may not be adequately prepared to teach. When such a crisis occurs, there is an urgent need to have teachers qualified to teach health. When these crisis programs are taught by teachers who are not adequately trained to teach health education, the program may not work. Parents and community leaders seize the opportunity to blame health education for its social problems when the courses are not well received by the students or the problems they were meant to solve persist. As a result, many people have become wary of health education programs. To resolve this conflict and avoid disasters of the past, teachers need to be properly trained to teach health education.

Colleges and universities need to upgrade the health education curriculum being offered in preservice teacher education programs. It is the necessary responsibility of teacher training institutes to help preservice teachers acquire the necessary attitudes and knowledge, just as they do with other subjects such as reading and mathematics. The status of school health will

improve "only when it can be demonstrated that professional standards are equal to or superior to other accepted areas" (Mayshark, Shaw, & Best, 1977, p. 466). Yet, state policy requiring the implementation of health education in schools is not a reliable predictor of the health instruction at the university level (Thompson & Doll 1984). "Although a state mandates a comprehensive health education program for its students, the extent to which teachers receive training to provide this health instruction is not clear" (Pearson, 1988, p. 38). Elementary school teachers are particularly unprepared to teach health education. "In the past, institutions have not been very supportive in preparing elementary classroom teachers in health education" (Kolacki, 1981, p. 32). This is supported with the following finding:

> Elementary classroom teachers lack preparation in health education, despite the fact that such preparation should be an integral part of teacher education programs. Colleges and universities with teacher preparation programs need to establish reasonable requirements for prospective teachers in planning effective health education curriculum and learning experiences. (p. 32)

In a study of interviews with elementary education departments and recent graduates, Herman (1985) found that recent graduates emphasized lack of expertise in the following areas: wellness and fitness trends, foundations of the total school health program, teachers' roles with health disorders/diseases, program development and innovations, boundaries of subject matter, resources and materials, and general knowledge of scope and sequence. Concern was also voiced about controversial subject matter such as death and dying, human sexuality, and chemical education (p. 30).

Teachers also described minimal implementation of health education because of their own lack of expertise and understanding "of the scope, sequence, and objectives appropriate to the elementary age" (p. 30). It was found that the content teachers most wanted included in the preservice course included curriculum development, the nature of the total school health program, health problems of children, and health education resources.

Several authors have identified goals that should be accomplished with the implementation of a preservice health education course. The achievement of these goals should help remedy the problem of the established inadequate teacher preparation in the field of health education. Meyer (1982) concluded that effective preservice courses achieved the following goals: (a) develop positive attitudes toward teaching health; (b) increase confidence of teachers in their abilities to teach health; (c) increase assurance of teachers that they can teach students with medical problems; and (d) develop teachers' confidence in their ability to recognize emergency conditions and to provide appropriate first aid.

Meyer also concluded that preservice teacher training can result in "improved health condition recognition and more effective health education in the classroom" (p. 494). This goal was supported by the research of Davis, Jelsma, and Van Valey (1985) who found that teachers with at least four hours of undergraduate health training felt far more comfortable dealing with student health problems than those teachers with little training.

Pearson (1988) developed recommendations for a preservice health education course for teachers after conducting a descriptive study of California's required preservice health education course, the only state-mandated course of its kind. One recommendation is for a separate course for elementary and secondary majors so that their specific needs may be better met. Unlike nonhealth education certified secondary teachers, elementary teachers are responsible for teaching health education to their students; therefore, the preservice training they need is quite different from secondary teachers.

A second recommendation is for students to be required to complete satisfactorily a general personal health course prior to enrollment in the preservice health education course so that more time may be spent on school health issues rather than basic knowledge needed for a foundation. The course should be a minimum of three semester units to cover all the necessary content and skill development. Finally, the state policy mandating the preservice health education should be worded in an unambiguous manner and taught to prepare teachers for their role as health educators and contributors to a total health program.

Initiate a Statewide Assessment Program

Tests have a powerful effect on teaching and are often the driving force behind curriculum development and implementation (Darling-Hammond, 1987; Darling-Hammond & Wise, 1989; Resnick & Resnick, 1989; Romberg, Zarrinia, & Williams, 1989). A recent U.S. Department of Education report claims that "accountability systems...are very powerful policy tools that have changed school-level planning and teaching activities" (OERI, 1988, p. 31). One way to ensure that health education is taught in schools is to develop and implement statewide assessments that measure the extent to which students are attaining agreed upon statewide health education goals.

Develop a Statewide Curriculum Framework and Model Curriculum Standards

One way to improve the success of health education is to align the curricular goals, objectives, instruction, and assessment. Budgetary and time constraints, turf issues, political pressures, and other issues work to make curriculum planning a fragmented process (Komoski, 1987). This results in a poorly aligned curriculum that leads to the appearance of unsuccessful instruction. When curriculum is poorly aligned, it is not known if poor instructional outcomes are due to misalignment, level of implementation, or program quality. Over forty years ago, Tyler (1949) asked four questions that address the issue of curriculum alignment:

1.What educational purposes should the school seek to attain?
2.How can learning experiences be selected which are likely to be useful in attaining these objectives?
3.How can learning experiences be organized for effective instruction?
4.How can the effectiveness of learning experiences be evaluated?

Asking these questions over and over again as curriculum is developed, purchased, implemented, and evaluated helps to ensure that the health education curriculum is aligned. A statewide initiative to develop a state curriculum framework and model curriculum standards for health education represents positive movement towards ensuring curriculum alignment (Komoski, 1990). Many states, if not most, develop frameworks for health education that can be used by local school districts to plan their own curriculum. The addition of model curriculum standards is intended to serve as a model for local school districts, not as a mandate. Model curriculum standards establish high expectations for the content of the health education curriculum and portray the state's vision for health instruction for its youth.

Local school districts can have a tremendous impact on the successful implementation of school health education. Although there are numerous innovative ideas, three hold particular promise for school districts seeking to take a leadership role to improve health education: (a) ensure adequate program implementation, (b) integrate health education across the curriculum; and (c) select or develop curricula to ensure the greatest probability of success.

Ensure Adequate Program Implementation

All too often school district staff say that they have a comprehensive health education program in place because all the materials have been purchased and disseminated and the teachers have been trained. When observations are made at the school site level, little health education is actually being conducted. Programs are far from being adequately implemented just because the teachers are trained and the boxes of materials are no longer in the district office. There is still a great deal of work to be done at the district level to ensure adequate implementation.

In order to assert with confidence that a program is or is not effective, one must first ensure that the program was fully implemented. If not, Type III evaluation errors occur in which a program has not been adequately implemented (Scanlon, 1977). Despite this, there have been few formative evaluations conducted to monitor program development and use it to document program implementation and improve effectiveness (Levine & Kolbe, 1983). Anderson, et. al, (1985) conducted a study of school improvement programs in an effort to determine what was needed to support these changes at the local level. They looked at a continuum of program implementation that includes four levels: (a) initiation, (b) initial implementation and outcomes, (c) complete implementation and outcomes; and (d) institutionalization. Several activities in teach stage were vital for school districts to conduct to ensure full implementation of programs. Selected factors within each stage are discussed below.

Initiation stage. Schools and districts in the phase of initiating a new health education program need to consider the following to begin the process of adequate implementation:

1.The perception of fit--a match between the program and local need--improved implementation at the initiation stage. This includes the selection of a quality program with district sponsorship and support of those involved in training. In addition, the health education program needs to be part of the district's mission and goals.

2.District leadership in the form of a district advocate for health education who is knowledgeable about the program and believes it fits district and school needs is essential.

Initial Implementation. Once implementation has begun, other implementation factors become important:

1.Programs need ongoing, effective training that produces immediate results. Trainers must be experts in the program, have good training skills, and model the new strategies being taught.

2.When resources, money and external and internal technical assistance, are not provided, the implementation effort is usually insufficient. Teachers need help to learn new practices and install new programs. Unless help continues, the result of initial training, even if superb, can wither.

3.District orchestration, where activities, strategies and tactics are carefully coordinated, improves program implementation and impact. This orchestration needs to include opportunities for peer networking, money for teacher release time, and external technical

assistance.

Complete implementation. These factors proved important to complete implementation of educational programs:

1.Programs must be implemented with fidelity, especially those programs that have been validated.

2.Programs must be monitored to ensure that they are not downsized. When pressure is applied, along with technical assistance, the probability of program success is improved. Administrators and faculty do not necessarily need to be initially committed to a new program for it to be successful. Mastery of new skills and observable student outcomes leads to commitment.

Institutionalization. In addition to key activities in the other three stages, health education programs will not become institutionalized until specific activities occur in this stage:

1.A clear and specific district mandate for ongoing, comprehensive school health education must be well articulated.

2.Impacts are seen with students, teachers, and principals. All of these activities take time and commitment from the district office as well as the local school site. If efforts are not adequately implemented, there is the danger that health education will be perceived as unimportant and ineffective when, in fact, it may just be that it was inadequately implemented.

Integrate Health Education Across the Curriculum.

The 1991 grants competition for the Comprehensive School Health Education Program included a Secretarial priority to integrate key school health education concepts into all aspects of the school program. Supporting this is a general consensus among elementary teachers that there is not enough time to teach all that is required of them. Health education professionals are concerned that the instruction will be watered down, there will be no adequate scope and sequence, and students will not be able to make the connection to health education.

Jacobs (1989) discusses two problems of inadequate attempts at curriculum integration. The potpourri problem occurs when course units become a sampling of knowledge from each discipline. This approach has been criticized for its lack of focus (Hirsch, 1987; Bloom, 1987) and adequate scope and sequence. Students are taught related themes from different disciplines hut are not provided with how these themes relate. With the polarity problem, "the teacher or curriculum designer has adopted such an 'anti disciplinary' attitude that vital discipline-based concepts are ignored or trivialized rather than enlarged through multidisciplinary connections" (Ackerman, 1989, p. 26).

There is a tendency to see curriculum integration as an alternative to discipline field specialization. Integration can work but not if the purpose is to save time and avoid teaching core health education content. "Students cannot fully benefit from interdisciplinary studies until they acquire a solid grounding in these various disciplines that interdisciplinary attempts to bridge" (Jacobs, 1989, p. 9).

There is a growing need for an interdisciplinary, whole-curriculum approach to teaching. Our knowledge base is growing so large and fast that there is a strong tendency to develop narrow fields of specialization rather than attempting to interrelate what we know in one field with what we know in others. There needs to be a strong connection in the curriculum so that students see the relevance of their studies to their lives outside of school. "The curriculum

becomes more relevant when there are connections between subjects rather than strict isolation" (Jacobs, 1989).

Health education content should be integrated only when it is pedagogically sensible and practically feasible. In addition, integration may be beneficial in the solution of such curricular problems as fragmentation, relevance, and the increase of knowledge. Just because it can, doesn't mean it should. It must be shown that using a multidisciplinary approach will help the students learn the concepts better than if they were taught separately (Ackerman, 1989, p. 27) thereby heightening their relevancy (Jacobs, 1989).

Criteria need to be applied to determine if it's in the best interest of the student's learning to integrate health education into other subject areas. Ackerman (1989) discusses four intellectual criteria for curriculum integration.

Validity within the disciplines. "Validity within the disciplines requires teachers representing each discipline to verify that the concepts identified are not merely related to their subjects but are important to them" (Ackerman, 1989, p. 27). The lack of validity within the discipline of drug prevention and other content areas has been evidenced by the author. Many school districts are training their teachers to integrate or infuse drug education into language arts, science, math, and other content areas. This is usually done without any thought to scope and sequence and validity within each discipline. For example, drug education content being infused into math has not been determined as an important concept by health educators. Although examples are provided on how a drug education concept relates to a mathematics theme, the question of whether the concept should devote a portion of valuable instructional time in an interdisciplinary project is often not discussed.

Validity for the disciplines. If the approach is valid for the disciplines, the student actually learns the concepts of each discipline better than if they had been taught separately. This validation is mutually beneficial to the students as well as to the teachers of each discipline.

Validity beyond the disciplines. When the curricular whole that is created is greater than the sum of its individual parts, validity beyond the disciplines has been achieved.

Contribution to greater outcomes. Integrated curriculum through interdisciplinary education, if effective, may also contribute to broader outcomes and understandings beyond the disciplines being integrated. Through an integrated approach students may develop more flexible thinking, adopt multiple points of view, become more adept at generating analogies, and improved comprehension. This contribution to broader outcomes can occur through integrated curriculum.

Select or Develop Curricula to Ensure the Greatest Probability of Success

When school districts select health education curricula, be it comprehensive or subject matter specific, it's rarely a systematic process. Each person's bias toward a particular approach often comes into play. One person may recommend curriculum A because it focuses on decision making. Another person may highly recommend curriculum B because it focuses on self-esteem. When curriculum selection is done unsystematically, all the components of a program do not get looked at and, consequently, curriculum gets selected or written based on a few people's agendas. This poses a very real danger of purchasing or writing a curriculum that will not be as effective as it could be at improving the health behaviors of youth. To avoid this problem, a committee should use predetermined criteria to systematically analyze the curriculum (English, 1988). Criteria for the development or selection of health education curriculum needs to be based on educational theory and the research on effective health

education programs (English, Sancho, Lloyd-Kolkin, & Hunter, 1990).

Health education must also address the increasing cultural diversity of our classrooms. "Teachers are usually unprepared to teach curriculum content to limited English proficient children. This situation does not predict successful instruction of a subject like health" (Sancho, English, Hunter, & Lloyd-Kolkin, 1991) with all its new terminology and concepts. Curriculum development must take into account the special health and education needs of the population to whom it will be provided.

Innovative School-Site Level Practices

There are strong opportunities for leadership at the school-site level that can improve the future of health education. The three innovations discussed below are (a) providing opportunities for family involvement, (b) increasing opportunities for peer programs, and (c) providing opportunities for peer coaching and instructional supervision.

Provide Opportunities for Family Involvement

"Researchers, practitioners, and policy makers consistently rank parent involvement high among the components of effective schools" (Epstein, 1987, p. 6). Almost all federal, state, and local education guidelines mandate school-family partnerships. However, a wide gap exists hetween the rhetoric and the reality. Few schools know how to encourage effectively and direct the involvement of parents and other family members. In reality, applications of these partnerships are few.

The findings of a six-year study sponsored by the U.S. Department of Education indicate that administrators, teachers, and parents have very different expectations of family involvement (Chavkin & Williams, 1985). Administrators and principals think the school's role is to create opportunities for parents to come to the school, to offer parent education and information classes, to schedule convenient conference periods, and to encourage parents to assist their children with homework. Parents think the school's role is to collaborate with them in joint decisionmaking. Administrators and teachers want a one-way relationship with parents: they want parents to support them. Parents want a two-way partnership. This difference in expectations almost guarantees failure.

From her research and a synthesis of the literature Epstein (1987, 1988; Brandt, 1989) concludes that there are five types of parent involvement. The five types, plus examples of each, are discussed below.

Type 1: Basic obligations of parents. Examples of this type of involvement include having parents provide for their child's health and safety, prepare their child for school, teach family life skills through the school years, and build positive home conditions that support school learning and behavior. Most parents are skilled at providing basic needs for their children, but when this obligation is not met, administrators and teachers may want to assist the family or alert social service agencies about the need for help.

Type 2: Basic obligations of schools. Schools are the most comfortahle with this type of involvement. The most common example is communicating with parents about school programs and the child's progress. The forms of communication vary from letters to back-to-school nights. According to Epstein (1987) large numbers of parents are excluded from even the most common communications with schools. Her research indicated that more than a third of the parents had no conference with a teacher during the school year. About 60

percent had never talked with a teacher by phone. Although more than 95 percent of surveyed teachers reported that they communicated with parents, most parents reported that they had never been involved in deep or frequent discussions with teachers about their children's program or progress (p. 6).

Type 3: Parent involvement at school. This type of involvement brings parents to the school to be involved with activities such as assisting teachers in the classroom or other school-site activities, attending student performances, or attending workshops, classes, or other programs for the purpose of improving their parenting skills. It is the lack of participation on the part of the parents at this level that is exceptionally frustrating for teachers and school administrators. Epstein (1987) reports that over 70 percent of the parents studied had never been involved in any activities of this type because nearly 60 percent of the mothers worked. Only about 4 percent "were highly active as school volunteers for 25 days or more a year" (p. 8).

Type 4: Parent involvement in learning activities at home. Learning activities may be designed to support the education being provided in the classroom or to develop skills that are directly coordinated with the child's class work. This type of involvement has parents initiating activities, children requesting assistance, teachers sharing ideas and instructions with parents for monitoring or assisting their children at home in learning activities coordinated with the children's classwork. Although principals tend to encourage involvement with reading activities more than any other subject, there are certainly ample opportunities for parents to provide activities at home that support the health education the children are receiving at school (Sancho, de la Rocha, Lloyd-Kolkin, & Hunter, 1992). "Teachers who frequently use home learning activities are usually able to involve parents of all educational backgrounds" (Epstein, 1987, p. 8). Both parents and principals rated teachers who provided frequent or systematic directions to parents to assist their children with specific skills superior in teaching ability and interpersonal skills. More than 75 percent of parents received no systematic directions from teachers to help them assist their child with the development of specific skills.

Type 5: Parent involvement in governance and advocacy. This type of involvement has parents in decision-making and advocacy roles at the school. Parents participate in decisions about the school health program, formulate or revise policies about health instruction, participate in the selection of new administrators, teachers, and staff, and monitor the school health program to make recommendations for improvement.

These five types of parent involvement are not mutually exclusive. Together they form a comprehensive program with three overriding goals that have direct implications for the success of health education:

- the improvement of school programs, classroom management, and teacher effectiveness,
- the improvement of student learning and development, and
- the improvement of parents' awareness of their continuing responsibilities and contributions to their children's education and social and personal development across the school years. (Epstein, 1988, p. 59).

Increase Opportunities for Peer Programs

A peer program is any program that uses children and youth to work with and/or help other children and youth (Benard, 1990). Examples include cooperative learning, peer tutoring, cross-age tutoring, peer helping (counseling), peer leadership, and youth service projects.

There are numerous benefits to using peer programs as a health education strategy. Evaluations have found both positive academic and social development gains in youth (Johnson & Johnson, 1983; Johnson, 1981; Glasser, 1986; Slavin, 1986; Slavin, 1990; Graves, 1990; Fantuzzo, 1989; Greenwood, 1989). Some of these benefits include improved interpersonal relations, greater social support, altruism and perspective-taking, increased self-esteem, and conflict-resolution. Levin (1984) also found that peer tutoring in particular is more cost-effective than computer-assisted instruction, reduction of class size, or increased instructional time for raising achievement scores.

Peer programs go back as far as the 8th century B.C. (Anderson, 1976). Students, serving as tutors, monitors, and teacher's aids have long been utilized by classroom teachers in an effort to extend and enhance the educational process. The increasing diversity of students in today's elementary classroom causes teachers to look for innovative ways to meet all their requirements for teaching content in a way that is meaningful and uniquely tailored to a students' learning styles. Peer programs can assist in this effort.

Resnik and Gibbs (1981) have developed four categories of peer programs that can be used when implementing health education programs:

1.Peer teaching/tutoring programs emphasize the role of youth in sharing various kinds of information with peers.

2.Peer counseling/facilitating/helping programs focus on the peer as a helper of others.

3.Peer participation programs emphasize the creation of new roles for youth within the school or the larger society, with the associated decision-making powers and responsibilities that may place them on a peer level with adults.

4.Positive peer influence programs emphasize group interaction among peers and the positive potential of this influence.

Benard (1990) discusses nine critical ingredients of peer programs: (a) positive interdependence, (b) face-to-face interaction, (c) individual accountability, (d) training in social skills, (e) time for group processing, (f) heterogeneous composition, (g) every child a helper, (h) adequate duration, and (i) youth involvement in program implementation. These ingredients will only work, however, after schools make a paradigm shift from the perspective that youth are problems to one that youth are resources (Benard, 1990). Glasser (1986, 1990), notes that the implementation of successful peer programs no longer requires teachers to view themselves as the boss who must control the student but rather the manager who facilitates student learning. Teachers cannot be expected to encourage participation, collaboration, and decision making among their students when they are not provided the same opportunities. To support teachers in this shift, principals need to encourage collaboration and provide for control over decisions affecting their work environment.

Provide Opportunities for Peer Coaching and Instructional Supervision

Teachers, just like students, need continued opportunities for learning and skill development. This is particularly true with health education since little, if any, learning is provided at the university level. Joyce and Showers (1982) first coined the term coaching in connection with teachers learning new skills. This term captures the vision of observing demonstrations, practice, and feedback. Coaching, along with opportunities for interaction with peers, also enhances instructional skills and reduces teacher isolation.

Garmston(1987) compares three types of coaching: (a) technical, (b) collegial, and (c) challenge.

Technical coaching. The goal of technical coaching is to establish a common vocabulary, increase collegiality, and transfer training. The observer checks the presence of teaching behaviors and makes value judgments about the teaching. The major premise is that teachers will improve teaching ability if they are provided with data in a nonthreatening and supportive environment.

Collegial coaching. The goal of collegial coaching is to refine teaching practices, increase collegiality, and stimulate self-initiating teacher thought. The observer enables the teacher to select the preconference, observation, and postconference topics, clarifies learning objectives and teaching strategies in the preconference, and helps the teacher recall, analyze, and evaluate teaching decisions. The premise is that teachers will acquire career-long habits of self-initiated improvement.

Challenge coaching. This type of coaching has as its goal to develop solutions to persistent instructional problems and promote improvements in other teachers. The observer envisions a challenge, plans action research, develops and implements solutions, and evaluates and recommends new practices. The premise is that problem-solving efforts by those responsible for carrying out instruction can produce practical improvements in instruction.

School administrators can develop and implement a plan for peer coaching around health education. Principals need to select a coaching model that is most likely to produce the outcomes they desire. They can then demonstrate their value for the coaching by "(a) providing resources, (b) structuring coaching teams, (c) acknowledging coaching practices, and (d) devoting staff meetings to coaching topics" (Garmston, 1987, p. 22). It is also important that administrators give teachers a structure for providing feedback, targeting a particular instructional content such as health education, and ensuring frequency of coaching. Coaches also need adequate and ongoing training.

Implications for Grantees

There are several implications of the above discussions for both current and future grantees. On the national level, projects can create national curricular health education achievement standards and national educational assessments that can evaluate progress towards achieving national goals for the health education. Model policies and procedures for eliminating funding barriers can also be developed and demonstrated in a local site. States can provide leadership in the field by requiring a preservice health education course for all teachers attaining a credential. A model course, including course outline, resources, student activities, and criteria, can be developed and implemented as a demonstration. States can also develop a statewide assessment for health education or incorporate health education into current assessments. Model curriculum standards that align with a state framework can be developed through a statewide committee of health education experts. Local school districts can demonstrate a process for monitoring and ensuring adequate implementation of the district's comprehensive school health education program. They can also develop and implement a curriculum integration plan based on sound theory and criteria that creates more relevance for students and enhances both health education and the other disciplines. Districts may also utilize existing criteria of effective health education curricula to develop their own curricula or select from existing programs. Finally, school sites can develop model demonstration programs that use family involvement, peer programs, and instructional supervision and

coaching to enhance program and teacher effectiveness.

As Carl Sandburg said in a 1953 interview, "I see great days ahead, great days possible to men and women of will and vision...." With a strong will and a great vision for health education, we can truly build cathedrals for our youth.

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Developing Comprehensive School Health Education Standards for Elementary School Programs

by Lucinda Adams and Betty Holton
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Adams and Holton summarize the information on current requirements for comprehensivve school health education, based primarily on *School Health in America* (1989), published by the American School Health Association (ASHA). Health education requirements are examined in three areas:

(1) health instruction;

(2) health services; and

(3) school health environment.

Developing Standards for Elementary School Comprehensive School Health Education Programs

Lucinda W. Adams, Betty J. Holton

In reviewing the literature regarding comprehensive school health programs it appears that the focus is on the need for a comprehensive approach to health education. The traditional view of a comprehensive school health program which includes health services, health education, and a healthful environment continues to be the predominant model. However, new definitions of "comprehensive" have encompassed a broader view. As defined by the Joint Committee on Health Education Terminology (1992), "a comprehensive school health program is an organized set of policies, procedures, and activities designed to protect and promote the health and well-being of students and staff which has traditionally included health services, healthful school environment, and health education. It should also include, but not be limited to, guidance and counseling, physical education, food services, social work, psychological services and employee health promotion" (p.).

The primary source for information on a national basis regarding standards for comprehensive health education is from a survey conducted by the American School Health Association (ASHA). In 1976, ASHA first published a survey regarding the standards that should guide school health in America. Recently, the survey has been revised, expanded, and survey findings sent to each state department of education or to the state department of health.

This paper includes a discussion the most recent information regarding healthy related requirements for elementary school health programs in all 50 states and the District of Columbia (School Health in America (Fifth Edition), 1989). Healthy related requirements must be a primary consideration in education developing standards for elementary school comprehensive school health education programs. However, standards for comprehensive school health education Programs begin with the school's/district's philosophy and goals and include school health instruction, school health services, and a healthy school environment (National School Boards Association Leadership Reports, 1991).

Philosophy and Goals For A School Health Program

The philosophy and goal statements of a district board of education should begin with statements of the board's attitudes, beliefs, and expectations pertaining to the comprehensive school health program. The policies and procedures should reflect and be consistent with the district's general education objectives. These policies will assure school administrators, teachers, students, parents, and the general community that there are adequate directions for program implementation. The policies should also include specific goals that will meet the health needs of the students and school personnel.

The major goals of the Dayton Public Schools Comprehensive

Health Program (Comprehensive Health Course of Study, 1992) is to assist young people in achieving their fullest potential by accepting responsibility for personal health decisions and practices (Comprehensive Health Course of Study, 1992). To do so, the students must become discriminating consumers of health information, health services and health products, and work to maintain an ecological balance for each individual within his environment (English, Sancho, Kolkin, and Hunter, 1990). Additionally, the district's plans provide a sequential cohort of learning activities for kindergarten through 12th grade, designed to favorably influence health attitudes, practices and cognitive skills.

Establishing An Advisory Committee. Advisory committees provide open communication to the entire community and guidance for achieving the goals and objectives of the health program. The committee may include: teachers; school administrators; public health and health agency professionals; parents; school nurse; student; and a religious community representative.

The advisory committee includes professionals and community members who represent diverse interests, opinions, and values reflected in the community. Further, an advisory committee should have the knowledge and experience to facilitate decisionmaking about the school health program. The curriculum specialist and the health education specialist serve as a vital link between the school administration, teachers, and students and the advisory committee. These two specialists should communicate the concerns of the school guidance and counseling department, physical education, food service, social work, psychological services, and the wellness program coordinator. A continuous and collaborative positive process between the advisory committee, and board of education contributes to the successful program and curricular implementation.

Health Instruction

A comprehensive program of health instruction includes learning activities and experiences that develop a protective environment that promotes the health and well-being of the students and the school personnel. In addition, the program should teach students to assume responsibility for their own health and well-being.

A comprehensive health instruction program should include a sequential program for grades K-12 that is appropriate to the needs, interests developmental level and intellectual ability of all students. The curriculum should include the essentials of physical, mental, social, and emotion health (DeFriese, Crossland, Wilcox, and Sowers, 1990). Because children develop attitudes and habits during their elementary years, programs and curricula should focus on preventing high risk behaviors rather than intervening when the at-risk behavior begins, Key to the effective delivery of health instruction is trained, knowledgeable teachers.

Certification Requirements

Each state establishes certification requirements for teachers. Many states have certification available in health education but it is not mandated. Only 21 states offer certification for elementary health teachers. Furthermore, only one state requires teachers to be certified in health education to teach the subject in elementary schools; 26 states require elementary teachers to have health coursework to qualify for elementary certification (Lovato, Allensworth, and Chanz, 1989). Developing trained, knowledgeable health education teachers is the co-responsibility of school in service educators and higher education preservice educators. ASHA and AAHE have developed "Health Instruction Responsibilities and Competencies for Elementary (K-6) Classroom Teachers." (See Attachment 1). Standards developers for health education must consider certification requirements and the ASHA and AAHE guidance.

Curriculum Requirements

There are a wide variety of curricula available. Many states, textbook companies, public and private organizations, and state departments of education have developed and published packaged programs. Some school districts, such as the Dayton Public Schools, have developed a comprehensive health curriculum. The Dayton approach is an experiential learning programs.

In developing standards for curriculum, Healthy People 2000 objectives that can provide a systematic and efficient focus for improving the health of school-age youth and enabling them to avoid health risks. The objectives can provide national consistency in goal-setting for reaching the more than 46 million students each year, as well as over five million instructional and noninstructional staff.

Although the importance of implementing health education in kindergarten appears to have much support, it is not yet mandated in all states. In the survey conducted by ASHA, 32 states required that health education be taught sometime during k-12; 13 additional states required a combination of physical education and health education; and 19 states required that health education be taught sometime in grades 1-6. Most states that had requirements also stipulated a certain number of hours per year. The mean number of hours per year was 53.15. It was noted in the survey report that as the student progresses through middle school and high school the number of hours required diminishes (Lovato, et al., 1989).

The expanded definition of CSHE encompasses physical education, school food and nutrition services, guidance counseling, and school psychology. Each of these services make a contribution to the health and well being of students. Physical education in elementary schools is mandated in only 38 states, and only 17 states provided a separate certificate for elementary certification (Lovato, et al., 1989).

School food services are an essential part of school

nutrition education programming, however, food service programs are mandated in only 20 states. Less than one-fourth of all states did not require a food service director. Most states do not mandate a school breakfast or lunch program, although the programs are recommended (Lovato, et al., 1989).

Guidance and counseling services for elementary schools are recommended in 25 states but not mandated; certification also is available but not mandated. Furthermore, there are no recommended ratios of counselor to student for the elementary grades (Lovato, et al., 1989). School psychologists are mandated in 46 states. Traditionally, school psychologists have been responsible for student screening and assessment. Currently, the role includes consultation and programming related to emotional or learning problems (Lovato, et al., 1989).

Health Services

School health services are an essential component of a comprehensive health education program designed to meet both student and school personnel needs. A health services program purpose is to promote, protect, maintain, and improve the health status of the students. These goals are met through the collaborative efforts of the student, the family, the physician, the dentist, school personnel, and the community. The school health services program serves as a learning experience for students, teachers, and parents to ensure positive health practices. Each school district should have a clearly defined written policy for health services. A handbook describing services offered should be available in every school office. The handbook should include policies and procedures on all matters pertaining to health services for pupils. School health services provide a foundation for life-long attitudes and behaviors. Healthy children can assimilate health values to change lifestyles.

Changes in the family, socioeconomic factors, and difficulties with accessing health care place a tremendous burden on schools. Therefore, the need for the school health services component of comprehensive health has escalated. A priority must be placed on the availability of a health professional in the school. For example, every state must assure that each child has access to a professional registered nurse, certified in school nursing to deliver comprehensive health services. Serious chronic medical conditions as diabetes, asthma, seizure disorders, and child abuse and neglect are illustrative of the issues encountered daily by school nurses. The immunization requirements for school entrance has presented such issues as accessing care.

The availability of school health services can have a positive impact on student health in many ways.

- Early detection of health problem;
- Access for low income families to community health resources;
- Increase student attendance rate because nurses can evaluate the students' health status; and

- Systematic entry point into the health care system for school-age children.

The focus of health services should be prevention, early intervention and remediation of health problems, and case management (Siblett, 1992).

The persons primarily responsible for administering school health services are registered nurses. However, in the assessment of state policies found in School Health in America (1989), only 32 states require registered nurses. Eighteen states mandate that school nurses attain specific certification. Most states do not mandate specific responsibilities for the school nurse; however, many states recommended guidelines for various activities. Nineteen states (37 percent) mandate that the school nurse help prevent and control disease; 18 states (35 percent) mandate that the school nurse assist in the identification and education of children with disabilities; and 11 states (22 percent) mandate that the school nurse provide emergency services for injury or sudden illness. Less than 20 percent of the states mandate the various other school nurse responsibilities (Lovato, et al., 1989). Standards established by professional nursing organizations have guidelines regarding nurse-student ratio. However, only eight states mandate a nurse-to-student ratio. The ratios varied by one nurse per school system to no less than one nurse per 1500 students (Lovato, 1989).

Increasingly, medications are prescribed that require doses be administered during the school day. For the safety of students and staff, policies should regulate the use of a prescribed drug in school. Only 28 states have policies that regulate medication administration and 17 states have policies regulating nonprescription drugs. In addition, with the passage of PL 94-142, The Education for all Handicapped Children Act of 1975, increasing numbers of students with disabilities are entering public schools and are being maintained. A large number of these students require specialized care and are medically fragile. Student-nurse ratios for serving students with disabilities have been established but not mandated.

Other services that may be mandated include student immunization, and the reporting of child abuse. Fifty states mandate DPT, measles, and rubella; 49 states mandate polio immunization; and 38 states mandate mumps immunizations. The reporting of child abuse by school personnel is mandated in most states. Standards development must address the role of the school nurse in school health education.

School Based Clinics

School based clinics began in the late 1970s. Presently six states have guidelines for operating such clinics. Changes in economic and social norms have resulted in health care delivery in school settings. School health services are responsible for services mandated or offered, yet not mandated for students to promote learning. Currently, the primary role includes emergency

care, health education, and nursing care plans for children with disabilities (Seblitt, 1992). However, with the Health Care Reform and other pending legislation, the role of school-based or school-linked health clinics will probably expand.

Healthy School Environment

Schools teach children the cognitive and interpersonal skills necessary for adult life and are social environments where children are presented diverse experiences that affect their health and well-being (Heit and Meeks, 1992). A healthy school environment encompasses the school day, school building and grounds, specific school activities, procedures, and policies that protect the health and safety of staff, students, and other school personnel. The school environment influences health, habits, and attitudes, as well as the comfort, learning, safety, and working efficiency of the total school population. The school administration has the responsibility for a healthy school environment; school personnel help maintain the environment.

An integral part of this responsibility includes the safe keeping of our children and youth. No longer can the schools provide solutions for the problems on or off the school grounds. Rather, schools must solicit the cooperation of the community, parents, social service agencies, governmental agencies, religious groups, police departments, and other groups. These collaborative efforts can help to keep the environment safe for our children.

Healthful Environment Requirements

Requirements for school health environment vary among states. School Health in America describes a healthy school environment as one that encompasses social, psychological, and physical factors. The school environment can have a positive impact on learning. Forty states have legislation establishing a healthful school environment and thirty-one state boards of education have adopted formal positions, policies, and guidelines regarding the school environment.

Forty-one states require accessibility for the disabled, 31 states for safety glass and 30 states for vermin control. Forty-five states regulate ventilation; 29 states regulate heating and cooling; and 27 states regulated lighting. It is notable that acoustics can impact learning, yet acoustics requirements exist in only ten states.

Safety Requirements

Other environmental requirements address safety. Twenty-three states require schools to develop a plan to ensure students' safety. Other concerns include: seat belts on school buses (only three states require safety restraints), and asbestos in the school environment (25 states meet federal regulations regarding asbestos and 22 states have no plan). Only ten states that had developed plans for asbestos in schools have the

necessary funds to carry out the regulation (Lovato, et al., 1989). Standards developers must address a healthy school environment in the context of existing legislative requirements.

Summary

The components of a comprehensive school health program cannot function in isolation, as has been the tradition. Together the components provide a comprehensive program in both the school and community. New directions and strategies should be developed to provide an interdisciplinary service delivery model. Such a model will ensure that every child, regardless of cultural or ethnic background, benefits from a healthy environment with quality health instruction and health services. Standards must address in an integrated manner the philosophy and goals of a school health program, school health instruction, school health services, and a healthy school environment.

As the nation faces the problems related to health care, the utilization of school health education programs can be a cost effective prevention strategy. To most effectively utilize this resource, collaboration is important, for "school systems are not responsible for meeting every need of their students...but where the need directly affects learning, the school must meet the challenge" (Hawkins, 190). Changing lifestyles and family relationships have brought about increase health risks that interfere with students achieving a quality education. Schools must help meet these challenges!

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A Community-Based School Health System: Parameters for Developing a Comprehensive Student Health Promotion Program

by Dr. Christopher D. DeGraw
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DeGraw proposes that while reform-minded educators, academicians, policymakers, and the public at large are rethinking the school's role as a community institution and its relationships with community resources, businesses, and the family, new paradigms and models of health education systems are being devised. He identifies the parameters of a paradigm for a community-based school health system. The common core of standards underlying the new models of school health systems should include the systems that are community based, student focused, needs driven, culturally sensitive, comprehensive, coordinated and integrated, prevention oriented, easily accessible, flexible, and accountable.

DeGraw makes several points that are markers for a new paradigm for comprehensive school health education. He says that

(1) programs, services, and environmental changes within the school and community should focus on maintaining the inherent wellness of the population and early identification of health, education, and social problems; and

(2) health services must be broadly defined. Providing health education while ignoring the basic physical health, mental health, and social service needs of students accomplishes little.

A COMMUNITY-BASED SCHOOL HEALTH SYSTEM: PARAMETERS FOR DEVELOPING A COMPREHENSIVE STUDENT HEALTH PROMOTION PROGRAM

Christopher DeGraw, M.D., M.P.H.

Over the past several years, school reform has emerged as a major topic of consideration among educators, academicians, policymakers, and the public at large. Efforts have looked at increasing autonomy and flexibility of management at the school building level as a means of achieving more educational innovation, accountability, and responsiveness to the needs of the student population. There also has been renewed focus on the school's role as a community institution, on rethinking the school's relationships, or lack of relationships, with other community institutions, community resources, business, and families. This reconsideration is ongoing and new paradigms and models to improve educational outcomes are being developed and debated at all levels.

School Health at a Crossroads

While disquieting to some, this turmoil and debate in education provides opportunities to advance new priorities and change "business as usual" in America's schools. Although school health programs have been around at least since the turn of the century, nearly one hundred years later the concept of school health continues to evolve.[1] The next several years will call for reassessment, creativity, and boldness in developing, advocating for, and implementing new models of school health within the context of a fluid and changing educational system. The concept of "school health" is at a crucial crossroads. School health as a component of the overall educational process can potentially benefit greatly from this upheaval and reassessment of education. School health can emerge as a crucial factor influencing the improved student outcomes sought by the advocates of school reform and can become institutionalized as a prominent component of the new education models. Conversely, there is a real danger that what little focus on school health currently exists will be lost among competing priorities, as evidenced by the lack of explicit acknowledgement of "health" in the National Education Goals and the previous Administration's school reform proposals.[2] It is up to the traditional advocates for school health to develop new constituencies in support of the role of health in the schools and to make the case persuasively to those who influence policy development that school health has a role in improving life outcomes, including educational outcomes, for students. It is particularly important to involve parents, as well as the majority of others in the community who do not have school-age children, educators, school boards, administrators, legislators and government officials at all levels. It is also imperative that the traditional practitioners of school health -- including school health educators, school nurses, physicians -- look beyond current models of school health practice to develop new models that, like those being sought in educational reform in general, are innovative and responsive to the needs of students and supportive of improved student outcomes. There must also be a realization, among practitioners and policymakers alike, of the complexity of the problems impacting on the education and health of young people at all ages and of the need for multiple, broad-based approaches to addressing these problems.[3] There should be an acknowledgement that existing "models" of school health have not fully and successfully addressed those needs, in part because the models that do exist have not been fully and successfully implemented. While there can be a

consensus on preferred outcomes and general approaches to school health, models should be flexible, adaptable, and specific to the needs of the students they serve. Funders, including government agencies, can provide leadership by helping to develop the basic parameters of new paradigms of school health and by supporting new models which take innovative and comprehensive approaches and that are held to an increased degree of accountability.

Parameters of a Community-Based School Health System

In the child health and special education communities over the past decade, parental advocacy, legislation, and government policies and programs at several levels have supported systems change toward the development of comprehensive, coordinated, community-based, family-centered, culturally sensitive services for children with special health care needs.[4] To address the multiple needs of that population of children, the goal is that traditional medical and other health services, educational services, and social services be readily accessible and delivered within in a coordinated, integrated system that places preeminent the needs of the population it serves. There has also been recognition of the need to develop communitywide systems of services for young children and their families that encompass child care, early childhood education, and health services.[5,6] It can be argued that what is needed to address the multiple needs of the school-age population is a "system" of school health that incorporates similar parameters. While such school health "systems" could, and should, take many different shapes and forms depending on local needs and priorities, there is a common core of standards underlying such systems. School health systems should be:

- community-based
- student focused
- needs driven
- culturally sensitive
- comprehensive
- coordinated and integrated
- prevention oriented
- easily accessible
- flexible
- accountable

A Community-Based System

How does the concept of a school health "system" differ from some existing conceptualizations of school health? The school health system depends upon the school becoming truly a community institution. More than ever before, school health must be community-based. Children's health-related attitudes and habits are influenced strongly by the families and communities to which they belong. Even the most comprehensive and well-developed school health program can be enhanced or compromised by these strong and pervasive influences. Likewise, resources, expertise, and opportunities exist in the community to expand the traditional scope and influence of school health. A mandate from the community can enhance the viability of the school program.

While the school serves the "hub" of the school health system, the school health

"system" is broader than the school itself. Assessment of the health and related needs of the student population should take place at the community level, not simply at the level of the individual school building. Likewise, assessment of resources that can be employed to build a school health system that addresses effectively those needs should also involve the community as a whole. The school provides the focal point within the community for development and implementation of the system.

The school-based components of the school health "system" will not be successful if they are not recognized to be an integral part of a broader community-based system. The knowledge and skills imparted in school-based health education must be consistent with, and reinforced by, opportunities to deliver health education in other venues within the community, such as community-based organizations, the media, the home, religious organizations and sports and other recreational endeavors. Curriculum planning must therefore go beyond the school building to be truly comprehensive, and take into account the varied backgrounds and training needs of individuals who may be delivering health education elsewhere within the community.

The scope and organization of school health services will be defined by the availability and accessibility of health services for children and adolescents in the community. Resources for school health services in many cases will come from other institutions within the community, such as social service agencies, nonprofit organizations, community health centers, hospitals, and health departments. But the school will appropriately be the focal point within the community for planning and coordinating these resources and linking students to the services they need.

Using another example, under a systems approach to school health the need for daily physical education classes may not be so acute. Keeping in mind that the goal is to provide students with opportunities for regular exercise to promote lifetime habits of physical activity, under a school health system school-based physical education classes would be just one component, integrated with aerobics classes, other community-based sports and recreational activities, availability of bicycle and jogging paths, and similar opportunities to achieve the desired goals.

For optimal outcomes, environmental changes within the school should be made in conjunction with environmental changes elsewhere within the community, fostering mutually-reinforcing school and community environments that are safe, drug- and smoke-free, and which are emotionally nurturing and supportive of the needs of young people.

A Focus on the Needs of Students

The school health system should be student focused. The health and educational needs of the students -- both their current needs to successfully negotiate childhood and adolescence and their future needs as adults -- should be the driving force behind the system and define and shape its components. Health education programs, health services, and environmental changes to promote health should be defined by student needs, not administrative convenience, tradition, or the pressures of professional and other interest groups. It must be kept in mind that the goal of the school health system should not be, for example, to institutionalize comprehensive school health education or daily physical education. Goals should be framed, and the success of the system should be judged, by student outcomes. Successful programs will focus on meeting the needs of the individual student as well as

students as a group.

The school health system should be needs driven. The health and educational needs of young people, both immediate and long-term, should be the basis for development of the school health system. A successful school health program will begin with an objective assessment of the needs of young people by examining health-related behaviors, health status, barriers to healthful lifestyles, and educational status. While national data sources can be used initially to give a general definition and direction to the planning process, local needs assessment is imperative to developing a successful and responsive system at the community level. Such a needs assessment can draw on existing objective data sources, such as public health, social service utilization, and educational outcome statistics, or employ surveys and other instruments to specifically document the health-related knowledge, attitudes, behaviors, and health service needs of the population to be served.

A valid and objective needs assessment serves several important purposes. It can serve not only as a planning tool but as a valuable and persuasive means to garner support for, and to counter inevitable opposition to, the implementation of a school health system in the community. Data collected to assess needs can be used as a baseline to evaluate the success of the program. There must also be a realization that health risks to young people are not static; needs assessment should be ongoing and the system must be responsive to the need for change.

Cultural Sensitivity

The school health system should be culturally sensitive. Objectives and programs developed to implement the school health system should be cognizant of the cultural norms of the community and be sensitive to the diverse backgrounds represented in the student population and in the community at large, building on that diversity to strengthen the system, maximize acceptance, enhance responsiveness of the system to student needs, and ensure optimal outcomes.

Comprehensiveness

Above all, the school health system must be comprehensive in scope. In successful models of school health, the various components will support and sustain one another within an integrated system. Students' needs will not be met by instituting a comprehensive health education curriculum alone or just by increasing access to health services. Successful outcomes will be limited if a piecemeal approach is continued which does not adequately address students' needs comprehensively.

It is doubtful that one can point to an existing example where a truly comprehensive approach to school health has been implemented at the elementary or secondary school level, even within the relatively narrow limits of "comprehensiveness" as defined by current models of school health. Attempts to simultaneously address the three basic components of the traditional school health model -- health education, health services, and a health promoting environment -- have been tentative and uneven. Examples of successful implementation of an expanded multiple component model of the school health program are likely to be even more rare.[7] This may be due in part to the lack of a constituency supportive of the broader program, issues of professional turf, poor communication and coordination between educators, administrators, providers of services, and the broad array of influences on the school

environment. Successful efforts to implement health education curricula have rarely been matched by simultaneous efforts to provide needed services or a commitment to broad and substantive environmental changes. Even in the small number of schools that have developed exemplary and innovative programs of school-based or school-linked health services, there has been little success in coordinating such efforts with the implementation of comprehensive health education curricula, other counseling and psychological services provided by the school, or with other services provided in the community.

Failure to achieve a comprehensive program may result from narrowness of vision or lack of clear outcome-focused goals and objectives. The level and breadth of effort, resources, support and commitment necessary to make comprehensive changes may be lacking. But in light of modest goals it is not surprising that modest results are all that have been achieved in many instances. It is well known that health education provided to students in inadequate amounts, by inadequately trained personnel, and in a categorical or piecemeal fashion, will be of limited effectiveness.[8] Even the best-implemented comprehensive health education curriculum will be undermined by an unhealthful school and community environment. Providing health education and making health-promoting environmental changes, while ignoring the health, mental health, and social service needs of students, is hypocritical at best and, not surprisingly, will minimize positive outcomes. "Health services" for the student population must be broadly defined. In light of the morbidities confronting today's students, social support services, recreational opportunities, and job skills training may have more of an impact on students' health than provision of physical exams or screening for medical conditions. A successful school health system will address the needs of the whole student in a comprehensive manner.[9]

School health systems should be comprehensive in approach as well as in scope, exploring innovative and promising technologies and educational methodologies to maximize the chances for successful results.

Coordination and Integration of System Components

The various components making up the school health system must be coordinated and integrated in order to extend limited resources, maximize outcomes, and best serve the health and education needs of students. Measures taken to implement programs in the three traditional areas of the school health program -- health education, health services, and a health promoting school environment -- or in the eight components of the expanded school health model must be approached in a coordinated manner and a mechanism of coordination must be institutionalized.

A common set of outcome goals and coordinated objectives can drive the multiple components of the system to work together. Goals and objectives for the school health system should be communitywide and developed in conjunction with multiple community programs and resources if fundamental changes in health status and health behaviors are to be achieved. For example, a school may be fortunate enough to have implemented a quality comprehensive health education curriculum with an exemplary nutrition component delivered by well-trained and motivated teachers. But, there is no logical reason to expect meaningful improvements in student knowledge, attitudes, and especially behaviors and nutritional status if the curriculum is undermined by unhealthy school food service and vending machine selections; there are few opportunities for regular physical activity and nutritional counseling

services are unavailable, or teachers and other personnel are not modeling positive nutrition behaviors. Likewise, parents need appropriate information and training to reinforce behaviors at home. The messages of the school health program must be addressed consistently in other venues where students can be reached in the community -- such as clubs, Scouts, and after-school programs -- and in the local media. And the nutrition example is but one narrow facet of the school health program.

Making such broad and fundamental changes, in effect, changing the "culture" of the school and the community, calls for commitment and leadership and especially, a mechanism of coordination. To develop a functional school health system, a full-time coordinator with energy, vision, and a mandate from school leadership is surely necessary. Such a coordinator must be able to see beyond the parochialism of individual disciplines and help others in the school and in the broader community see how their various roles are complementary and can have an additive effect on student outcomes. That person must be able to develop and operationalize the mechanisms needed to coordinate and integrate the multiple and varied components of the system. The coordinator position also offers a point of accountability within the developing school health system. The work of the coordinator must be backed up by school systemwide policies that promote coordination and integration of all the components influencing student health. The support and commitment of the school administrator is crucial.

The school health system must be coordinated longitudinally as well as across components. It should not be surprising that a school health program beginning in middle school or high school may have limited impact on important health outcomes. The comprehensive school health system encompasses preschool and the elementary grades, and is coordinated with early childhood systems in the community.

Prevention Orientation

School health systems must be prevention oriented. Prevention and health promotion programs for adolescents, including more traditional school health programs or the broader school health "system" addressed in this paper, must be a appropriate continuation of similar systems of integrated education, services, and environmental change available in the school and community for preschool and elementary school-age young people. To maximize the effectiveness of prevention programs addressing the needs of the adolescent population, prevention efforts should begin at this earlier period. School-centered health programs at the preschool and elementary level may be less charged politically and more readily accepted by the community; parents who become accustomed to comprehensive programs in early childhood and in the elementary grades will expect similar programs and services when their children reach middle and high school age.

Programs, services, and environmental changes within the school and community should focus on maintaining the inherent wellness of the population, early identification of health, educational, and social problems, provide children and youth with access to preventive services, and ensure linkages to appropriate remediation and treatment. The various school-based and community-based components of the school health system will work together to effectively help young people acquire the knowledge base and the appropriate attitudes and skills to promote and maintain their own health throughout their student and adult lives.

Students thus prepared will be more likely to influence positively the health of the families for which they will be responsible and the communities in which they live. The school health system will address changes necessary within the physical and psychological environments of the school and community to prevent injury, illness, and failure and promote health, social competence and educational success.

Accessibility

A successful school health system must be easily accessible to those it is intended to serve. Accessibility requires building awareness of the components and resources available to users of the system throughout the school and the greater community. Students need to know what is available to them, how the components of the system may help meet their immediate or future needs, what they can expect of the system and what the system expects of them (e.g., confidentiality issues). Likewise, teachers, administrators, parents, community workers, health professionals, and others in the school and community need to know what is available to help them meet the needs of young people. There must be multiple entry points into the system throughout the school and the community. Ensuring accessibility also requires fostering communication among the components of the system.

Flexibility

School health systems must be flexible in order to be responsive and to remain responsive to students' needs. A dynamic model is needed to take advantage of changing opportunities and resources within the school and the community and to respond to advances in the knowledge base regarding health promotion for children and adolescents.

Advocates and funders of school health programs at the national and state levels must also recognize that flexibility is desirable. School health systems that develop locally must be able to be responsive to the unique set of needs identified in the community. Though there may be a common set of principles or minimal standards that can be useful in guiding the development of school health systems generally, there is danger inherent in prescribing a single model. Communities should be encouraged to be innovative and creative in developing programs responsive to the needs of their students. School health programs will reflect community "values" at the same time as they address community "realities." In building school health systems it is likely that strength will come through diversity.

Accountability

More so than in the past, emphasis must be placed on the accountability of school health programs. To remain viable over time, the school health system must be accountable to taxpayers and other funders, to administrators whose support is necessary to sustain the program, to school boards, to parents, and to the community at large. Above all, the community-based school health system must be accountable to the young people it serves. Is the system responsive to the needs of students? Are student outcomes improved? Are students leaving school with the knowledge and skills to live healthy and productive lives? While the school serves as the hub of the system, the onus for success or failure does not fall on the school alone under this model. The system, as noted previously, is broader than the

school itself. And it is the school health system, and ultimately the community, that bears responsibility.

School health has always seemed to many of us to be the "right thing to do." But in times of limited resources and competing priorities more will be required than simply good intentions. At the school and community level, evaluation must become an integral part of the school health system. In addition to monitoring process and outcomes, evaluation data can be useful to increase support for the school health program among community members and to identify areas of further need.

Funders, including government programs, should continue to place increased emphasis on evaluation of model programs and demonstration projects. In addition, "basic" research in school health must be supported to define the linkages between school health and improved student outcomes, particularly the relationship between school health and education outcomes.

Support for a Comprehensive Approach

Are federal grantmaking programs currently supporting the development of comprehensive systems of school health that meet the parameters described above? Reviewing abstracts of thirty-five projects currently or previously funded under the Comprehensive School Health Education Program of the U.S. Department of Education's Office of Educational Research and Improvement shows, as would be expected due to the nature of that grant program, that all projects have as their primary focus the health education/curriculum component of the school health program. Projects funded through this program are developing training approaches, materials, and resources, and models that may be useful more broadly in efforts to institutionalize and improve the quality and comprehensiveness of the health education component of school health programs. Some grantees, however, appear to be taking at least limited steps toward more comprehensive approaches to school health. A few projects are developing multidisciplinary teams to address school health, including at least token community representation. Others are involving parents and community agencies in health education efforts and employing programs to complement health education, such as an after-school fitness program and peer counseling, or addressing some environmental changes.

Though the majority of the plans are limited for the most part to school-based health education approaches, at least one grantee's project appropriately envisions "communitywide educational linkages and builds upon existing educational reform efforts already underway." According to the abstract, the "design of this project is based on the premise that healthy behavior involves a host of complex and interrelated factors. Thus an effective school health education program must be multifaceted, interdisciplinary and involve multiple educational and related social service community agencies. This approach of integrating school and community efforts embraces a collaborative and active partnership between the school and its key staff, parents, community leaders, community institutions, businesses and social and health service agencies dedicated to improving children's health." The broader approach being taken by this project contrasts with the narrower interpretations of comprehensive school health education being employed by most of the grantees. This demonstrates that it is possible under this particular grant program to fund projects that at least purport to take a more expansive, as well as more in-depth, approach to school health.

Although the information available in an abstract is necessarily limited, only a few of

the grantees cite indicators of students' health status or needs as the basis for the particular approaches being employed by their projects. While the majority of abstracts mention evaluation, the proposed evaluations in many instances appear to be process-oriented, rather than outcome-oriented. A few projects specifically address issues of cultural appropriateness of curricula, but these issues do not appear to be generally stressed by the grantees. As noted, the central focus of all of the projects is the school health education component of the school health program.

Mobilizing for a Broader Approach to School Health

The implementation of school health education should not be an end in itself. When a broad and objective look is taken at the community level at the health and well-being of children and adolescents, it should become apparent in most instances that health education that is prevention-oriented and delivered both through the schools and in the community is an important part of the strategy to improve child and adolescent health. But health education alone cannot address effectively the issues and problems affecting students today. And health education delivered in relative isolation from the other components addressing the well-being of young people will surely be less effective.

It is time to take a "systems change" approach to prevention as it applies to the school-age population. Efforts to improve child and adolescent health status should be based on an objective assessment at the community level leading to development of comprehensive strategies. The schools, as the community institution common to all young people, will be the obvious focal point for coordinating and for implementing many of these approaches.

Comprehensive school health education will surely be one of these important strategies. The movement to establish comprehensive school health education widely can gain badly needed momentum by being reconceptualized as an important part of a broader approach to addressing the issues of student health. The service integration model, whereby access to needed social services, mental health services, health services, recreational and vocational services is achieved through integration of these services at the school site, is recently gaining interest and support from policy makers and funders at many levels.[10,11] School health education and the other traditional components of the school health program should be reconceptualized as an important part of the array of components that must be integrated at the school and community levels to take a truly comprehensive approach to prevention for the target population.

The task is broad and daunting, and without a readily-identifiable constituency to support it. But taking the broader and more comprehensive approach will have a higher likelihood of paying off in the end in terms of positive outcomes. Using needs assessment to mobilize a constituency that supports wide-reaching approaches to improving adolescent health, including school health education, will have greater impact than health educators and others advocating narrowly for school health education alone. Likewise, the growing constituency advocating for school-based health services should recognize that increasing access to health services alone will not achieve optimal outcomes.

Leadership for a comprehensive approach to adolescent health must come from those at the top of the policy-making ladder as well as from the grass-roots level. Funders may want to consider the notion of funding fewer but more comprehensive projects at larger amounts of funding over longer periods of time, thus allowing grantees to carry out in-depth

needs assessments, implement bold and innovative "systems change" approaches to school health, and complete rigorous outcome evaluations. There is currently no single federal grant program supporting the development of community-based, comprehensive systems of school health for adolescents. In the absence of such programs, existing federal programs that support components of adolescent and school health could be coordinated to make funding available for proposals that let communities and schools take a truly comprehensive approach to systems change. Current grantmaking programs should develop requests for proposals and funding priorities that encourage coordination of funding streams to allow communities to develop comprehensive approaches. Federal funding could potentially be coordinated with funding from private foundations and other sources for this purpose.

The education reform movement offers a window of opportunity for those who understand the tremendous potential of school health and the appropriate roles the school can play as an institution that touches the lives of young people, their families, and the entire community. Until we are willing and able to undertake fundamental changes in our schools and communities to promote positive outcomes, we will continue to tinker at the margins of the health and educational attainment of our children.

References

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Appendix

Secretary's Fund For Innovation In Education
Comprehensive School Health Education Program
Project Directors' Workshop

November 3-5, 1992

Agenda

Tuesday, November 3, 1992

4:00 p.m. - 6:00 p.m.	**Registration**	***Federal Ballroom South Foyer***
5:00 p.m. - 6:00 p.m.	**Welcoming Reception** Materials Display	***Federal Ballroom South***

Wednesday, November 4, 1992

8:30 a.m. - 9:30 a.m.	**Informal Breakfast with OERI Assistant Secretary Diane Ravitch and FIRST Director Jan Anderson**	***Federal Ballroom North***
9:30 a.m. - 10:00 a.m.	**The Vision of the Comprehensive School Health Education Program** Shirley Jackson Director Comprehensive School Health Education Program	***Federal Ballroom North***
10:00 a.m. - 10:30 a.m.	**The Federal Role in Comprehensive School Health Education** Joe Caliguro Program Officer CSHEP Bob St. Peter Coordinator, School Health Initiatives Office of Disease Prevention and Health Promotion U.S. Department of Health and Human Services	***Federal Ballroom North***

10:30 a.m. – 10:45 a.m.	**Break**	
10:45 a.m. – 12:15 p.m.	**Challenges to Comprehensive School Health Education** (choose one)	
	Session A: Health Policy Development Issues Facilitators: Betty Poehlman, NSBA James Williams, NEA	***Federal Ballroom North***
	Session B: Coalition and Team Building Facilitator: Steve Kreimer, NaSHEC	***Executive Room***
	Session C: Culturally Sensitive Issues Facilitators: Becky Smith, AAPERD Jill English, SWREL Lenora Johnson, AAPERD	***Cabinet Suite***
	Session D: Curriculum and Training Models Facilitators: Beverly Terlosky, West Virginia University Cathy Balsley, School District of Philadelphia	***Council Suite***
12:15 p.m. – 1:30 p.m.	**Lunch** (on your own)	
1:30 p.m. – 2:30 p.m.	**Panel Discussion** Commissioned Papers: Highlights and Issues	***Federal Ballroom North***
2:30 p.m. – 2:45 p.m.	**Break**	***Federal Ballroom North***
2:45 p.m. – 4:15 p.m.	**Breakout Sessions to Discuss Papers** (choose one)	
	Session A: Standards for Developing An Elementary Comprehensive School Health Education Program Facilitators: Lucinda Adams Betty Holton Dayton City Schools	***Federal Ballroom North***

10:45 a.m. – 12:15 p.m.	**Evaluation Sessions** (choose one)	
	Session 1: Getting Started: What Types of Data to Collect	***Judicial Room***
	Facilitator: Kathy Zantal-Wiener COSMOS Corporation	
	Session 2: Making the Most of Your Data	***Executive Room***
	Facilitator: Ann Slater University of North Carolina	
	Session 3: Conducting Evaluations for PEP	***Council Suite***
	Facilitator: Gil Garcia National Diffusion Network	
12:15 p.m. – 1:30 p.m.	**Lunch** (on your own)	
1:30 p.m. – 3:00 p.m.	**Topical Sessions** (choose one)	
	Session 1: Using Technology for Comprehensive School Health Education	***Federal Ballroom North***
	Facilitator: Sheryl Gotts Milwaukee Public Schools	
	Session 2: SEA, LEA, and IHE Collaboration	***Judicial Room***
	Facilitator: Glen Gilbert, University of Maryland	
	Session 3: Family and Community Involvement	***Executive Room***
	Facilitators: Susan Catel, Philadelphia Public Schools Betty Holton, Dayton Public Schools	
	Session 4: Teachers as Models for School Wellness	***Council Suite***
	Facilitator: Janet Henky Old Court Middle School	
3:00 p.m. – 3:15 p.m.	**Break**	***Federal Ballroom North***
3:15 p.m. – 4:15 p.m.	**Reporting Back and Wrap-up**	***Federal Ballroom North***

FUND FOR THE IMPROVEMENT AND REFORM OF SCHOOLS AND TEACHING

COMPREHENSIVE SCHOOL HEALTH EDUCATION PROGRAM

The Quality Hotel
November 3-5, 1992
Washington, DC

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Where are the Comprehensive School Health Education Projects Located?

Geographic Distribution. Geographically, the FY 1992 projects were distributed across 24 states. Four states (New York, Pennsylvania, Ohio and Virginia) have more than one project each. With few exceptions, the general geographic distribution places the grantees in the eastern and mid-western states, and along the west coast. Exhibit 1 illustrates the geographic distribution of the projects.

COMPREHENSIVE SCHOOL HEALTH EDUCATION GRANTEES - FY 1989 to FY 1993

LOCAL SCHOOL DISTRICTS (12)

Cambridge School Department, Cambridge, MA
Community School Health Education Project, Brooklyn, NY
**Dayton City Public Schools, Dayton, OH
Jefferson County Public Schools, Louisville, KY
Milwaukee Public Schools, Milwaukee, WI
McCormick County School District, McCormick, SC
Napa Valley Unified School District, Napa, CA
New York City Public Schools, Hollis, NY
*Richmond Unified School District, Richmond, CA
**School District of Philadelphia, Philadelphia, PA
The School Board of Dade County, Miami, FL
The Toledo Public School District, Toledo, OH

STATE EDUCATIONAL AGENCIES/REGIONAL CENTERS (18)

Arizona Department of Education, Phoenix, AZ
Connecticut Department of Education, Hartford, CT
Educational Service District 105, Yakima, WA
Education Service Center Region VI, Huntsville, TX
Genesee Intermediate School District, Flint, MI
Gratiot-Isabella Regional Education Service District, Ithaca, MI
Maine Center for Educational Services, Auburn, ME
*Maine Center for Education, Augusta, ME
**Maryland State Department of Education, Baltimore, MD
Massachusetts Department of Education, Quincy, MA
Mississippi State Department of Education, Jackson, MS
**Nebraska Department of Education, Lincoln, NE
*Oregon Department of Education, Salem, OR
Regional Health Education Center, Yorktown Heights, NY
South Carolina Department of Education, Columbia, SC
*South Dakota Department of Health, Pierre, SD (Indian Res.)
*Wisconsin Cooperative ED Service Agency #111, Cumberland, WS
*Wisconsin Department of Public Instruction, Madison, WS

INSTITUTIONS OF HIGHER EDUCATION (16)

*Baylor College of Medicine, Houston, TX
**California State University, Long Beach, Center for Health Behavior Studies
Indiana University, Bloomington, IN
*Jackson State University, Jackson, MI
Kent State University, Kent, OH
Morehead State University, Morehead, KY
**Pennsylvania State University, Altoona, PA

*Grant expired
**Grant expires FY 1993

*Regents of the University of California, San Francisco, CA
*University of Alabama, Tuscaloosa, AL
*University of Mississippi, University, MS
University of North Carolina--Charlotte
*University of South Carolina, Columbia, SC
**University of Tennessee, Chattanooga, TN
West Virginia University--Morgantown, WV
*Western Washington University, Bellingham, WA
*Wright State University, Dayton, OH

NATIONAL ORGANIZATIONS (7)

American Alliance for Health, Physical Education, Recreation, and Dance, Reston, VA
*American Lung Association, Louisville, KY
**American School Health Association, Kent, OH (2)
National Education Association, Health Information Network, Washington, DC
National School Boards Association, Alexandria, VA (2)
*Texas Association of School Administrators, Austin, TX
*National Association of State Boards of Education, Alexandria, VA

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Northwest Regional Educational Laboratory with five universities, Portland, OR
Prevention Resource Center, Springfield, IL
Rocky Mountain Center for Health Promotion and Education, Lakewood, CO
*South West Regional Lab, Los Alamitos, CA

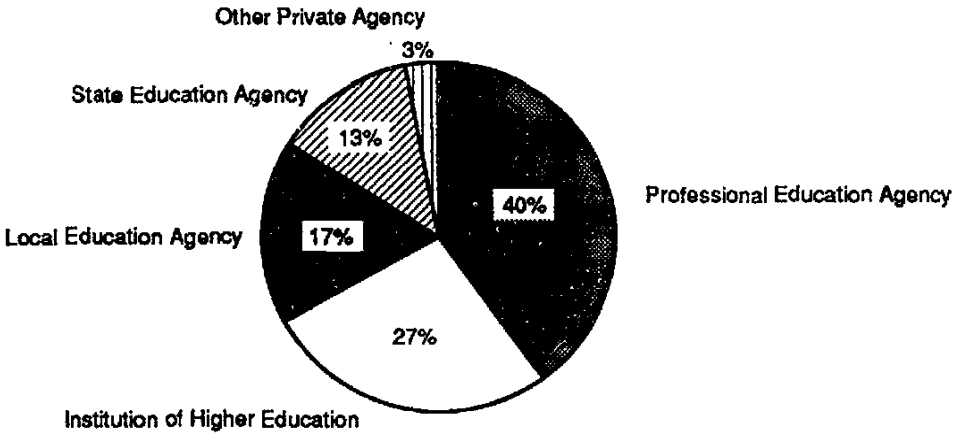
*Grant expired
**Grant expired FY 1993

COMPREHENSIVE SCHOOL HEALTH EDUCATION PROGRAM
GEOGRAPHIC DISTRIBUTION OF GRANTEES
(N = 30)

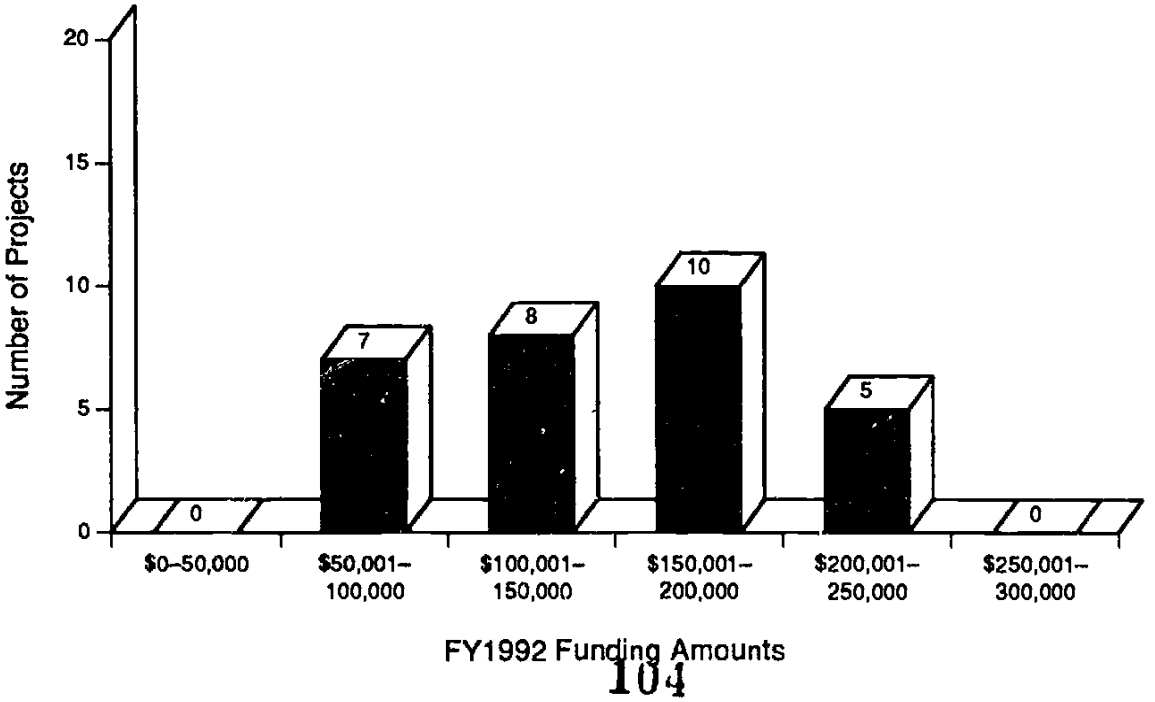
102

103

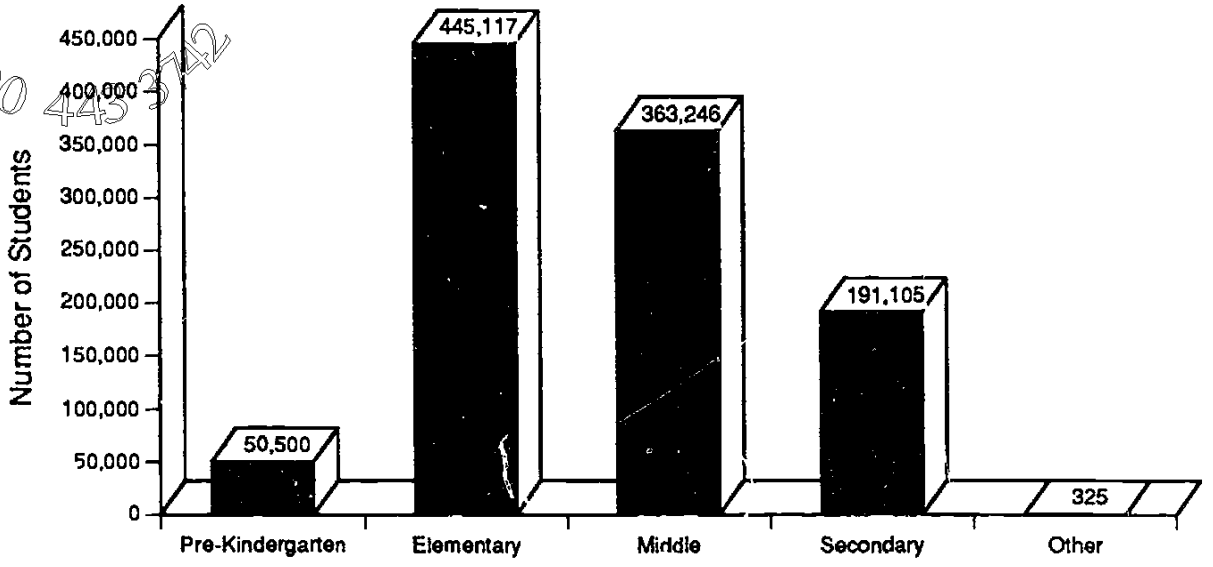
Type of Grantee
(N =30)



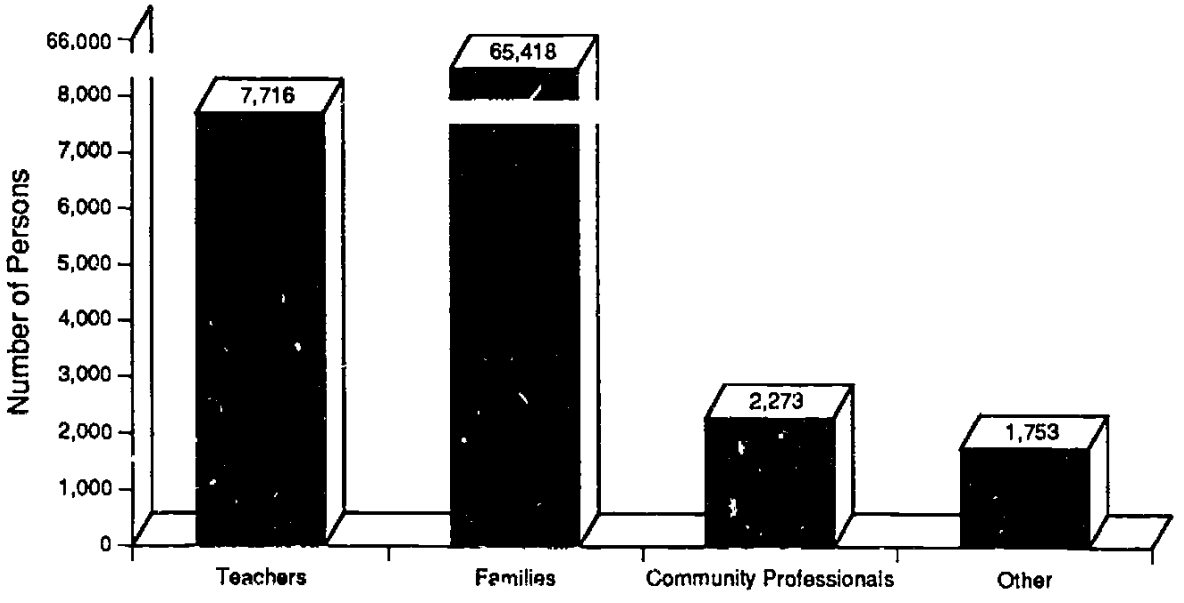
FY1992 Funding
(N = 30)



Students Served



Persons Trained



COMPREHENSIVE SCHOOL HEALTH EDUCATION PROGRAM

Grantee	Project Period	Abstract Reference	Major Project Components						Program Grade Level				Geographic Setting		
			Curriculum Development	Family Involvement	Multi-Cultural Awareness	Partnerships	Professional Development		Preschool	Elementary	Middle	Secondary	Urban	Suburban	Rural
ARIZONA															
Arizona Department of Education Phoenix, AZ Bette L. Denlinger (602) 542-3051	7/91 - 6/94	IX-13	•		•	•	•			•	•	•	•	•	•
CALIFORNIA															
California State University Long Beach, CA Susan Glarratano (310) 985-5740	10/90 - 9/93	IX-14		•		•	•			•			•		
COLORADO															
Rocky Mountain Center for Health Promotion and Education Lakewood, CO Donna Pike (303) 239-6494	10/92 - 9/95	IX-15		•			•			•			•	•	•
CONNECTICUT															
Connecticut State Department of Education Hartford, CT Veronica Skerker (203) 566-2763	10/92 - 9/95	IX-16	•				•			•			•	•	•

COMPREHENSIVE SCHOOL HEALTH EDUCATION PROGRAM

Grantee	Project Period	Abstract Reference	Major Project Components						Program Grade Level				Geographic Setting		
			Curriculum Development	Family Involvement	Multi-Cultural Awareness	Partnerships	Professional Development		Preschool	Elementary	Middle	Secondary	Urban	Suburban	Rural
DISTRICT OF COLUMBIA															
National Education Association Washington, DC James Williams (202) 822-7570	7/91 - 6/93	IX-17	•				•			•	•	•	•	•	•
ILLINOIS															
Prevention Resource Center Springfield, IL Jackie Garner (217) 525-3456	10/92 - 9/95	IX-18		•		•	•			•				•	•
INDIANA															
Indiana University Bloomington, IN Nancy Ellis (812) 855-9441	10/92 - 9/94	IX-19				•	•				•		•	•	•
KENTUCKY															
Morehead State University Morehead, KY Judy Oaks (606) 783-2133	7/91 - 6/94	IX-20	•	•			•			•	•	•			•

COMPREHENSIVE SCHOOL HEALTH EDUCATION PROGRAM

Grantee	Project Period	Abstract Reference	Major Project Components						Program Grade Level				Geographic Setting		
			Curriculum Development	Family Involvement	Multi-Cultural Awareness	Partnerships	Professional Development		Preschool	Elementary	Middle	Secondary	Urban	Suburban	Rural
MAINE															
Maine Center for Educational Services Auburn, ME Elaine Roberts (207) 783-0833	10/92 - 9/95	IX-21				•	•			•	•	•	•	•	•
MARYLAND															
Maryland State Department of Education Baltimore, MD Betty Reid (410) 333-2325	9/90 - 8/93	IX-22	•			•	•			•	•	•	•	•	•
MASSACHUSETTS															
Education Development Center Newton, MA Christine Blaber (617) 969-7100	10/91 - 9/94	IX-23	•				•				•	•	•	•	•
MICHIGAN															
Gratiot-Isabella Regional Education Service District Ithaca, MI Larry Schaffenaar (517) 875-5101	10/92 - 9/95	IX-24	•	•			•			•				•	•

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			Curriculum Development	Family Involvement	Multi-Cultural Awareness	Partnerships	Professional Development	Preschool	Elementary	Middle	Secondary	Urban	Suburban	Rural
MISSISSIPPI														
Mississippi Educational Network Jackson, MS Temple Lymberis (601) 982-6565	10/92 - 9/94	IX-25	•	•			•	•	•	•		•	•	•
NEBRASKA														
Nebraska Department of Education Lincoln, NE JoAnne Owens-Nauslar (402) 471-4334	10/90 - 9/93	IX-26	•			•	•	•	•	•	•			•
NEW YORK														
Community School District #22 Brooklyn, NY William Reder (718) 368-8027	10/92 - 9/95	IX-27	•	•			•		•			•		
New York City Public Schools Hollis, NY Jeanne Schweitzer (718) 465-1001	10/92 - 9/93	IX-28	•	•			•		•	•	•	•		
Regional Health Education Center Yorktown Heights, NY Trish Koclalski (914) 245-2700	10/92 - 9/93	IX-29	•	•		•	•		•			•	•	

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Grantee	Project Period	Abstract Reference	Major Project Components						Program Grade Level				Geographic Setting		
			Curriculum Development	Family Involvement	Multi-Cultural Awareness	Partnerships	Professional Development		Preschool	Elementary	Middle	Secondary	Urban	Suburban	Rural
NORTH CAROLINA															
University of North Carolina Charlotte, NC Ann Slater (704) 547-4695	9/91 - 8/94	IX-30	•			•				•	•	•		•	
OHIO															
American School Health Association Kent, OH Diane Allensworth (216) 678-1601	10/92 - 9/95	IX-31		•			•			•			•		
Dayton City Schools Dayton, OH Lucinda Adams (513) 262-2943	9/90 - 8/93	IX-32		•			•			•	•	•	•		
Kent State University Kent, OH Marcia Rubin (216) 672-7977	10/92 - 9/95	IX-33	•	•		•	•			•	•	•		•	
OREGON															
Northwest Regional Educational Laboratory Portland, OR Steven Nelson (503) 275-9547	10/92 - 9/95	IX-34				•	•			•					•

COMPREHENSIVE SCHOOL HEALTH EDUCATION PROGRAM

Grantee	Project Period	Abstract Reference	Major Project Components						Program Grade Level				Geographic Setting		
			Curriculum Development	Family Involvement	Multi-Cultural Awareness	Partnerships	Professional Development		Preschool	Elementary	Middle	Secondary	Urban	Suburban	Rural
PENNSYLVANIA															
Pennsylvania State University Altoona, PA Lori Bechtel (814) 949-5239	10/92 - 9/93	IX-35	•			•	•			•	•		•	•	•
School District of Philadelphia Philadelphia, PA Catherine Balsley (215) 351-7131	10/90 - 9/93	IX-36	•			•	•			•			•		
TENNESSEE															
University of Tennessee Chattanooga, TN Gene Ezell (615) 755-4194	10/90 - 9/93	IX-37					•			•	•		•	•	
VIRGINIA															
American Alliance for Health, Physical Education, Recreation, and Dance Reston, VA Leonora Johnson (703) 476-3420	7/92 - 6/94	IX-38			•		•			•	•	•	•	•	•

COMPREHENSIVE SCHOOL HEALTH EDUCATION PROGRAM

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			Curriculum Development	Family Involvement	Multi-Cultural Awareness	Partnerships	Professional Development	Preschool	Elementary	Middle	Secondary	Urban	Suburban	Rural
VIRGINIA (continued)														
National School Boards Association Alexandria, VA Adria Thomas (703) 838-6717	7/91 - 6/94	IX-39					•		•	•	•	•	•	•
WASHINGTON														
Educational Service District #105 Yakima, WA Jane Gutting (509) 575-2885	10/92 - 9/95	IX-40	•	•		•	•	•	•	•				•
WEST VIRGINIA														
West Virginia University Morgantown, WV Karen Douglas (304) 293-3295	7/91 - 6/94	IX-41	•			•	•		•					•
WISCONSIN														
Milwaukee Public Schools Milwaukee, WI Sheryl Gotts (414) 475-8057	7/91 - 6/94	IX-42	•	•		•	•		•	•	•	•		

TOWARD A VISION FOR THE COMPREHENSIVE SCHOOL HEALTH EDUCATION PROGRAM

Shirley A. Jackson

VISION: STIMULATE HELP: Health Education Learning to Practice

TARGETS: Elementary and Secondary School Students and Enablers (Policy makers, Educators, Students, Parents, Community, Health and Social Service Workers)

ELEMENTS [GOALS]	DESCRIPTIONS *	OUTCOMES
1.Instigate and Motivate	To urge; stir up To provide with an incentive: impel To urge to action: compel To drive forward: propel	Shared Vision - Leadership - Awareness - Commitment - Policy Development (e.g. America 2000 Education Goals and Healthy People 2000)
2.Initiate	To cause to begin To introduce to a new field, interest, skill, activity To introduce into membership	Communication - Needs Assessment - Research Based Syntheses - Coalition Building - Resource Leveraging
3.Collaborate	To work together, especially in a joint effort	Multidisciplinary/Interagency/Integrated Services Health Education Committees/Teams
4.Propagate	To cause to multiply, increase, spread or breed To hand down (characteristics) from one generation to another To make known; publicize	Innovative, Effective Health Promotion and Education Models --Programs, Training, Curriculum and Instruction, Technology Use

* From Webster's Dictionary

ELEMENTS [GOALS]	DESCRIPTIONS *	OUTCOMES
5.Substantiate and Evaluate	To determine or fix the value of To examine carefully; appraise To support and verify with proof or evidence To give material form to: embody To give substance or reality to; make real or actual	New, innovative, useful evaluation models that assess knowledge, attitudes, skills, and lifestyle behavioral changes in target population Projects and practices proven to work Data that substantiates the value of health education to achievement
6.Accelerate	To increase the speed of To bring about sooner than expected To hasten the growth or progress of	Project models and materials used for developing/ replicating effective CSHEP projects and practices throughout the nation
7.Adjudicate and Differentiate	To hear and settle by judicial procedures	Agreed on--Definitions, standards, frameworks, policy directions, needs and priorities Issues Resolution--Focus groups, white papers, conferences
8.Promulgate and Disseminate	To scatter or spread widely; diffuse broadly	CSHE Projects in NDN- CSHE Data Base- CSHE Clearinghouse-Reports on Effective Practices
9.Celebrate	To observe with ceremonies of respect, festivity, or rejoining To praise publicly; honor	Recognition of outstanding achievement--letters of commendation, certificates, plaques
10.Accommodate	To acclimate or adjust To reconcile, as differences To allow for	Institutionalization of CSHEP projects Projects developed based on needs and perspectives of culturally diverse populations Integrated services collaboration projects Interdisciplinary teams staffing of CSHEP Programs

* From Webster's Dictionary

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